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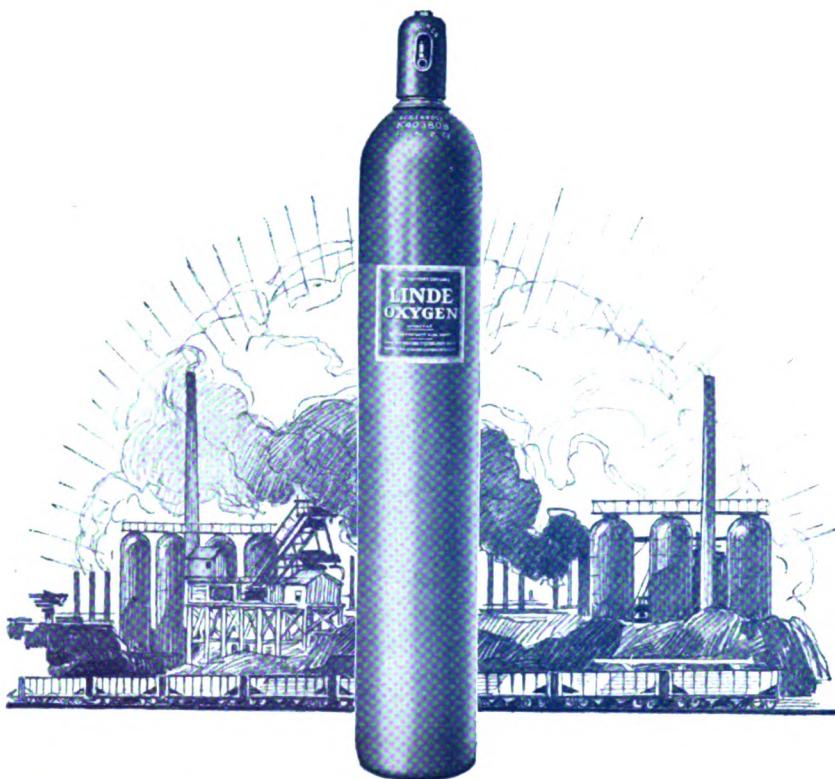
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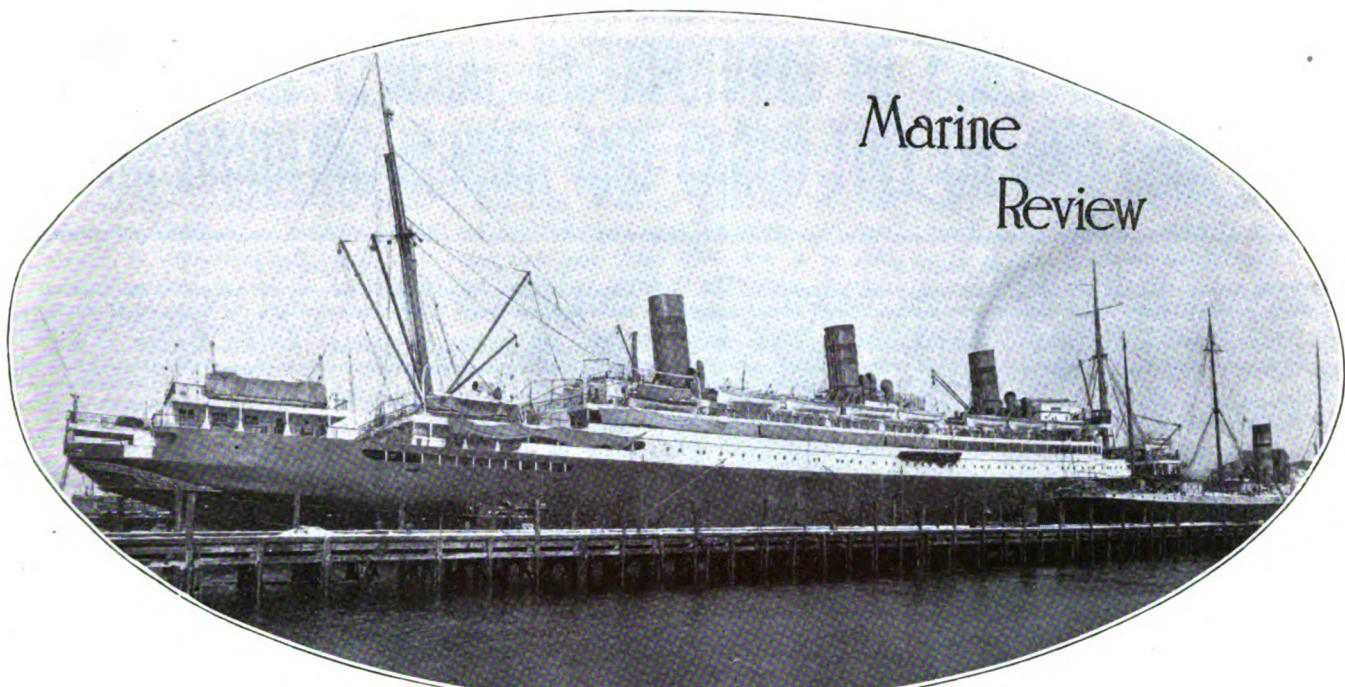
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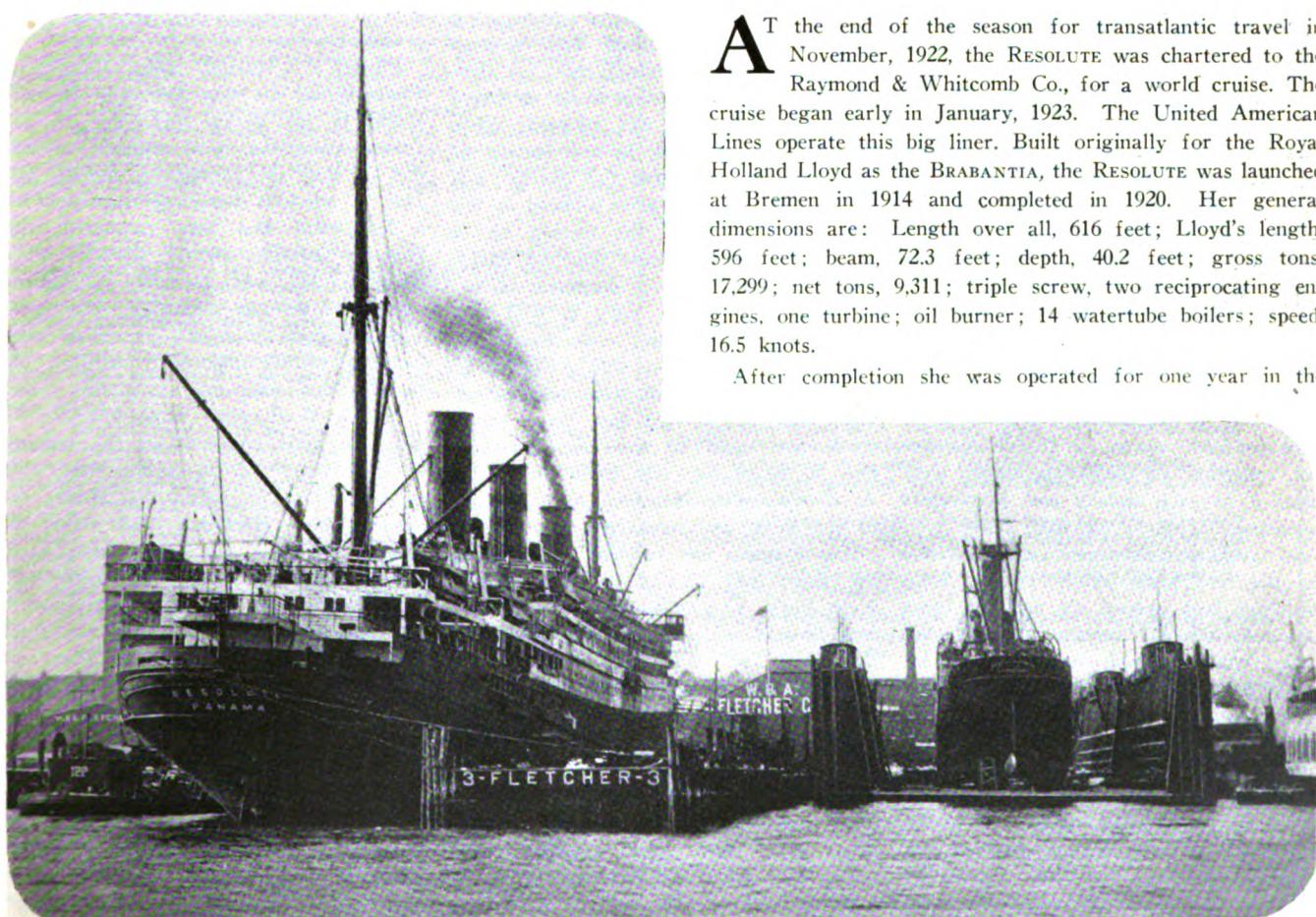


Marine  
Review

American Owned Passenger Liner RESOLUTE

# Refit Big Liner in Fast Time

**Eastern Repair Yard Overhauls American Owned Passenger Ship for World Cruise, Advancing Delivery Date**



AT the end of the season for transatlantic travel in November, 1922, the RESOLUTE was chartered to the Raymond & Whitcomb Co., for a world cruise. The cruise began early in January, 1923. The United American Lines operate this big liner. Built originally for the Royal Holland Lloyd as the BRABANTIA, the RESOLUTE was launched at Bremen in 1914 and completed in 1920. Her general dimensions are: Length over all, 616 feet; Lloyd's length, 596 feet; beam, 72.3 feet; depth, 40.2 feet; gross tons, 17,299; net tons, 9,311; triple screw, two reciprocating engines, one turbine; oil burner; 14 watertube boilers; speed, 16.5 knots.

After completion she was operated for one year in the

BIG LINER AT FLETCHER DOCK GETTING READY FOR WORLD CRUISE

Europe-South American service. In January, 1921, the Atlantic Mail Corp., a subsidiary of the American Ship & Commerce Corp., acquired the *BRABANTIA* by purchase. She was renamed the *RESOLUTE* after the famous American cup defender, and placed in the north Atlantic service, New York, Plymouth, Cherbourg and Hamburg, under United American Lines management.

Before going on the world cruise, a thorough overhauling was decided on. Bids were opened for extensive general repairs, the engine room repairs being especially heavy. W. & A. Fletcher Co. was the successful bidder and the *RESOLUTE* was brought to its works in Hoboken, N. J., on Nov. 29. On Jan. 2, 1923, five days in advance of contract time, she was completed and delivered to the United American Lines. Some notion of the extent and detail of the general reconditioning may be appreciated from the fact that over 245 separate work orders were issued. Engine room work particularly, involved many additions and a great deal of overhauling and repairing. A partial list of repairs is noted as an indication of the variety and nature of the work done.

#### Description of Repairs

The main engines were thoroughly repaired, two high pressure cylinders were rebored, new pistons with new rings were made and fitted. Valves and false faces and valve chest casings were removed, repaired and installed. Port and starboard low pressure piston rods and valve stems were trued up in lathe and fitted with new neck bushings and metallic packing. High pressure cylinder covers were trued up, and repairs made to main injection and discharge pipes on both sides; main stop valves were repaired and new drain piping fitted from main turbine.

All damaged and defective tubes in the 14 boilers were renewed, the boilers cleaned both fire side and inside, safety valves were repaired and placed in good order and 13 automatic feed regulators were installed. As an aid to efficient control, reflectors for observing smoke were installed in each uptake and pyrometers connected in uptake of each boiler.

An auxiliary condenser was installed and the feed water heater rebuilt. Main condenser was opened up and all tubes were renewed. The turbine lubricating oil cooler was removed, repaired and installed in good order. Four composition valve chambers for main feed pumps were made and installed in place of the old cast iron chambers. Only a few of the items under the head of general repairs can be touched upon. A 12-ton carbon dioxide refrigerating machine was installed complete, and new insulation fitted to the under side of the cold storage boxes. The contractors fitted a

complete laundry machinery installation of the latest improved type, with all accessories such as a large capacity reservoir water heater, and a 4000 cubic feet per minute fan for ventilation. Double bottom tanks were steamed out and cleaned and the heating coils increased. Improvement in ventilating system to crew quarters by repairs to fans and the installation of a new 4000 cubic foot fan was carried out. The hoisting winches for lifeboats were repaired. Vent pipes from settling tanks were extended up along the funnel to 30 feet above the boat deck. All the tank tops in the fire room were cleaned, cemented and lime washed, and the sides of the settling tanks were scraped, wire brushed and white washed. Many general repairs were executed in passenger quarters and toilets and to galley. Wooden decks were caulked and payed. Electric light wiring and fixtures were repaired. Some structural work was done on the saddles under two boilers. A new anchor stock was furnished. Wind chutes from 12 to 16½ inches in diameter and 348 in number were furnished.

In handling the above extensive and complicated reconditioning job, the methods pursued by the repair yard are of interest. Before the ship came to the yard all necessary preparations had been made to begin work at once on her arrival. Substantial and adequate gangways were completed, work orders were prepared and distributed and instructions issued to the charge men. A definite policy of beginning work on every order simultaneously was adopted. When all the required work in any section of the ship was completed this section was shut off and no men were allowed in this part. This obviated the tearing up or damage to work already done by carrying out some delayed or forgotten task.

The port of New York is well supplied with a number of thoroughly equipped large capacity ship repair yards. In quality and the dispatch with which work can be carried out these repair yards are equal to the best anywhere else in the world. Of these the W. & A. Fletcher Co., Hoboken, N. J., is one of the oldest and most favorably known.

The business was founded in 1853, and the plant then located on West street, New York, was called the North River Iron Works. Marine engines and other machinery for ships were built by this firm for many years. Hulls built elsewhere were engined and equipped complete with all machinery. After organization as a corporation in 1883 under the name of W. & A. Fletcher Co., the plant was removed to its present location. Here with space available, contracts were taken for the construction of hulls as well as engines.

The company has been a pioneer in the

improvements in marine propulsion, including the successful introduction of the steam turbine in American ships. In 1907, the steamers *YALE* and *HARVARD* were completed, equipped with turbines. These ships are well known for their high speed, successful operation and luxurious accommodations, and were a distinct advance in marine engineering in their day. Reconditioning of vessels and repairs of all kinds are now carried on. A steady growth in space and equipment including a floating drydock of 8500-ton capacity, has placed this yard in the first rank.

#### Obituary

H. W. Hand, former president of the William Cramp & Sons Ship & Engine Building Co., Philadelphia, died late in January. Mr. Hand was born in 1861 and entered the service of the I. P. Morris Co., Richmond and Beach streets, Philadelphia, in 1879, finally becoming chief engineer which position he held until 1903. The I. P. Morris Co. was acquired by the Cramp company in 1893, and in 1903, Mr. Hand was elected to the position of assistant to the president of the Cramp company. From this time until retirement from active duty in June, 1918, he occupied successively the positions of general manager, second vice president and general manager, vice president, and president.

Philip M. Halzell, ship broker of Philadelphia, died on Feb. 12. He was found in his garage overcome by gas fumes, generated it is thought in trying to start an automobile engine. Mr. Halzell was 48 years of age and for a long time had been connected with shipping interests in the port of Philadelphia. He was formerly a director of the Maritime exchange. His principal interests were in connection with handling nitrate imports from Chile for the DuPont company.

Frank Wellington Hodgdon, for 47 years a civil engineer in the employ of the state of Massachusetts, died at his home in Arlington, Mass., recently. Mr. Hodgdon had been in charge of all of the engineering work of the state in connection with harbor developments and improvements for several years. He built the Boston drydock, Commonwealth pier and was consulting engineer in charge of the construction of the Cape Cod canal.

James Frederick Bliss, well known in shipping circles, died at his home in Boston recently. Mr. Bliss had been long associated with the James Bliss & Co., grocers, ship chandlers and vessel owners. He was director of the Simpson Patent Drydock Co.

# SUMMARY OF GENERAL INSTRUCTIONS TO CHIEF ENGINEERS FOR HANDLING BUNKER AND CARGO FUEL OIL AND COAL

## I. ORDERING.

- A. As much advance notice as possible shall be given by the Master (preferably 48 hours) to the port representative of the Emergency Fleet Corporation or Agent for the vessel.
- B. If any trouble exists with burning equipment, tanks, coils, also if any tanks contain any fuel oil not usable, same should be reported at time request for oil is made.
- C. Avoid Sundays, holidays, or night deliveries as much as possible.
- D. If tugs are necessary to furnish steam, same should be specified when ordering fuel oil.
- E. State exact position of vessel and time vessel will be ready to give barge clear berth.
- F. State size and type of filling connections.

## II. RECEIVING.

- A. Bunker tanks should be reasonably free from water, sediment, and other foreign substance and otherwise be in proper condition to receive oil.
- B. It shall be the duty of the Chief Engineer, or one of his assistants who is thoroughly familiar with the vessel's fuel-oil system, to be on board at all times when the vessel is receiving fuel and provide the services of sufficient personnel to satisfactorily handle lines and make hose connections.
- C. It is imperative to have an understanding with the captain of the barge or deck foreman about signals for "starting," "slowing down," and "stopping."

## III. BARGE DELIVERIES.

- A. The exact time should be taken when the oil barge comes alongside, when pumping starts, and when pumping has been completed.
- B. Ascertain if barge is calibrated and if calibration tables are on board.
- C. Before pumping starts, the Chief Engineer or assistant with the barge captain, will gauge and take temperature of the oil. After delivery is complete the engineer and barge captain will again gauge and take temperature of barge tanks and agree on the amount of oil delivered by careful checking of measurements against the calibration tables.
- D. If no calibration tables are on barge, the Chief Engineer will note on the delivery tickets the measurements of the barge tanks and the temperature of both opening and closing gauges. Chief Engineer will then sign receipt for one lot of oil delivered and show temperature. He must also note on receipt any delay incident to the delivery and show quantity as shown by measurements of vessel's tanks.

E. In cases where bunkers are taken at the oil docks, the Chief Engineer shall go ashore or send a competent assistant to witness the opening and closing gauges of the shore tanks, take temperature of the oil, and compare gaugings with calibration tables of the shore tanks to determine quantity received.

## IV. SAMPLE.

- A. When the Emergency Fleet's inspector is not present the Chief Engineer shall see that a fair sample of the oil delivered has been taken. He shall insist that supplier furnish him with at least one pint of the sample, same to be sealed and initialed by the supplier's representative and the Chief Engineer, and be retained by the Chief Engineer at least thirty days. If any trouble is found with the oil, the Chief Engineer is to turn the sample, with seal unbroken, over to the Emergency Fleet Corporation's representative or agent of the vessel at the first port of call for analysis, and make a written report as to the quality and trouble with the oil.

B. Bunker tanks are to be sounded before delivery and after oil has had time to cool. This will give a further check on the amount of oil received. If any great difference in figures, the fact should be promptly reported to the port representatives.

C. For making temperature adjustment in ascertaining net quantities of fuel oil, use the divisional method. Multiply difference in temperature above 60° F. by .0004, add 1 and use result as divisor in dividing the gross barrels; the product will be the net barrels. For example, if 8,000 barrels of oil were received at a temperature of 100° F. the temperature correction would be worked out as follows:

$$\begin{aligned} 100 - 60 &= 40 \text{ degrees difference in temperature.} \\ .0004 \times 40 &= 0.016; 8000 + 1 = 8001 \text{ barrels, or} \\ \text{actual net quantity of oil received at } 60^\circ \text{ F.} & \end{aligned}$$

## V. COAL BURNERS.

- A. When taking coal bunkers alongside coal piers in the absence of the Emergency Fleet Corporation's inspector, the Chief Engineer shall keep a record of the number of pier cars dumped through the chutes into his vessels and should in every case procure from the pier superintendent a copy of dumping ticket, which ticket should show number of cars dumped and weight of each car.

B. When taking coal bunkers from lighters, scows, or barges, the Chief Engineer shall have some one aboard vessel check the quantity of coal received.

C. The Chief Engineer should use the following cubic capacity, which will be used in figuring the amount of coal in bunkers: 42 to 45 cubic feet per ton of 2,240 pounds. Fine coal will usually run 42 cubic feet to the ton, and large lumps will usually equal 45 cubic feet to the ton. It will be necessary for the Chief Engineer to judge the sizes of the coal in order to get a more accurate check of bunkers received.

D. The Chief Engineer shall give careful study of the capacity of his coal bunkers at different levels and to the manner in which the coal is trimmed in order to give him a further check on the quantity he receives.

E. The Chief Engineer should know the quality of coal that has been ordered and be at least partly familiar with its characteristics, and should himself inspect or have a member of his staff inspect the coal as it comes aboard for any unusual amount of bony coal, shale, dirt, or any other foreign substance. If it is found that the coal is not up to the standard quality of the coal he is supposed to receive, he should at once protest to his port representative. If he is compelled to take the coal, he should note poor quality on the delivery ticket and on his log.

## GENERAL.

A. Chief Engineers should turn over all fuel oil in vessel's tanks as often as possible—at least every 30 days, especially in double bottom and peak tanks. Fuel oil allowed to age in vessel's tanks generally becomes contaminated.

B. Special attention should be given at all times to the danger of allowing any oil to enter the waters of the harbor.

C. Every precaution should be taken in using water ballast to avoid mixing water with fuel oil.

D. Special effort should also be made to minimize amount of smoke escaping from anchored or docked vessels.

## LOADING AND BUNKERING OF OIL.

The Master will be held strictly responsible for the enforcement of the National Fire Protection Association rules for receiving bunker oil, as quoted below:

Before commencing to load oil, all signal bells, gongs, etc., shall be tested to insure working condition.

Hose used for filling or discharging shall be of the flexible metallic type; couplings shall be equipped with sleeves or some other approved device for the purpose of taking up shock and preventing rupture of connections through tension, in the event of a vessel moving during filling operation.

While oil is being received or discharged, no open lights, smoking or electrical apparatus liable to spark shall be permitted within 50 feet of an oil hose, tank, compartment containing a tank, or vents. Storage tanks shall be watched for leaks.

Hatches on tankers shall be kept closed during loading or discharging. Tugs or other steam vessels shall not be allowed alongside when hatches are open.

If practicable galley fires in tankers shall be extinguished; otherwise openings to the galley shall remain tightly closed during loading or discharging.

On tankers there shall be no fire in the donkey boiler, and all drafts and openings shall remain closed and the fire room hatchers covered.

Loading or discharging should, as far as possible, be carried on in the daytime. When carried on at night no lights should be permitted on the deck. Lights shall be in clusters and suspended in the rigging at a safe distance from deck and the wires shall not drag across the deck.

The Chief Engineers shall give close attention to any special instructions issued by the Emergency Fleet Corporation that may affect bunkering at certain ports.

Approved by:

Captain C. A. McALLISTER, Chairman  
Captain R. D. GATEWOOD, (CC) U. S. N.  
Major GEORGE M. TALBOT  
Mr. E. H. PEABODY  
Mr. MAURICE HEALEY  
Mr. F. B. WEBSTER  
Colonel GEORGE BARTLETT  
Mr. D. M. MYERS

*Fuel Conservation Committee*

**JOSEPH E. SHEEDY,**

*Vice President, Emergency Fleet Corporation*

# Why an Operator Favors Subsidy

**Analysis of the Fundamental Advantages of a Merchant Marine and the Reasons for Supporting the Subsidy Bill**

BY FRANK C. MUNSON

**A**SK the American shipper who has tried the American ship managed and operated by experienced and efficient operators whether he prefers the American ship or the foreign ship, and you will invariably get an answer that will convince you of the need of maintaining the American flag in the trade routes of the world. And every passenger who has traveled on one of our fine modern passenger liners knows that these ships create more actual friendly good will between the nations of the world than any other vehicle we have. The mere fact that we have these fine fast, well planned and safe vessels running in the principal trade routes of the world is going to continue to be of the greatest benefit to the American business man and the American traveler.

Assuredly, without the passage of the subsidy bill these ships are doomed ultimately to either be maintained at a greater expense by the government or sold to fly under foreign flags from this great country of ours to foreign lands.

The past two years have shown great improvement in the efficient operation of these American ships in the great trade routes of the world, and they are today doing a good beyond the calculation of the average American citizen. They are accruing an actual benefit to the American citizen that is immeasurably beyond the amount covered by this bill.

Of the amount of tonnage owned under the American flag, by far the largest portion is owned by the shipping board, now the greatest ship-owner in the world. Due to ship-building operations to meet war emergencies, the United States became the second largest maritime nation of the world. Yet today, over two-thirds of the government fleet, including some 964 steel ships, is tied up inactive.

The intent of the present shipping bill is that a ship subsidy be granted in order that this large fleet of steamers may be restored to service and under private operation, resulting in the establishment of permanent trade routes and the training of American young men for sea service. This great

nation of ours would then no longer be dependent upon foreign tonnage for a large part of the exportation of its commodities, as is the case today, entailing the payment of high overseas rates imposed upon us by foreign nations, which they are able to do through their larger fleets giving them the major representation at the joint conferences on overseas freight rates.

The Jones act of 1920 outlines a matter of fundamental importance to all Americans, that private initiative, ownership and operation should be stimulated by every means possible. The shipping board could not get away from the ownership of vessels so long as there was no market for their vessels to be sold in, and the new bill is designed in part to create for American vessels a market through the clauses equalizing the cost of operation of American ships with that of foreign ships.

## A Means of Saving

Failure to pass the shipping bill means a tremendous additional cost under shipping board operation, as is shown by the fact that the appropriation requested by the board for the ensuing year just to cover the losses in the operation of its vessels, is nearly double the amount asked for the ship subsidy, and does not cover overhead expenses, depreciation, replacements or additions to the fleet.

All of you have heard of the International Mercantile Marine Co., one of the greatest shipping companies in the world. According to the statement of its president, the majority of its stock is owned in this country, yet why is it that 90 per cent of its tonnage is under the British flag? Evidently because its management does not believe that it can operate these ships as cheaply under the American flag as under the British flag, and it believes that it is safer to keep the preponderance of its tonnage under the British flag until some such bill as is now pending has been passed equalizing the cost of running an American ship with that of the foreign competitor. The officials of that company are building and have built a considerable number of vessels in British yards since the war closed, having lack of confidence, apparently, in the passage of a proper shipping

bill to enable vessels to operate successfully under the American flag.

The majority of operators of our American ships have taken a great pride in having a large majority of American citizens, both as officers and crews, and it is an interesting fact that the steamship AMERICAN LEGION, on her first trip had 100 per cent American officers and crew, of which 100 were members of the American Legion. That percentage was maintained for a number of trips, and the matter of service on the ship was something that those fine seamen took a pride in to make it as good as it could be on any ship.

The Jones act of 1920 imposed upon the board the obligation to turn over to private ownership and operation as speedily as possible the ships it owned. The board has not been able to sell more than a comparatively few ships up to the present because of the lack of just such a bill as is now pending. It can, in my opinion, sell a very large number of them after the bill passes, at fair prices.

There is one point, however, which the board should not continue, and that is the matter of operating ships itself in any of the trade routes. The United States lines were properly taken over by the board when the United States Mail failed to pay its bills, and since then this line has been operated by the government itself, having some advice from time to time from some of the smaller operators. If we want to stimulate and create private initiative, which we are all agreed is vitally necessary, then the board should advertise for operators to operate these ships, as there are several companies that could operate them well and select a proper operator, who would thereby become so deeply interested as to be a potential buyer of the ships when the subsidy bill goes through.

Government operation is a bad thing because it does not stimulate private initiative, and because there is always a tendency to fill jobs without due regard to the most efficient personnel in every instance. It is inevitable that a greater degree of attention must be paid in appointing personnel for government operated ships, to the requests of men in office than is the case on the privately owned and operated ships.

An address by Frank C. Munson, president of the Munson Steamship Line, at the annual meeting of the National Merchant Marine Association, Washington, Feb. 7.

That tends inevitably toward a lesser degree of efficiency.

No farmer, merchant or manufacturer can afford to let the American flag ship disappear from the sea. Every citizen of this country is interested directly in the maintenance of a merchant marine for the reasons I shall outline as I go along.

One of the most fundamental necessities of any great nation is to have sufficient merchant vessels to support its navy in case of war, and if we by failing to pass the present shipping bill force the American shipowner to change the flag of his vessels and the shipping board to sell to foreign owners, then the American merchant marine will disappear from the seas except in the coastwise trades, and we shall not have the proper type of merchant vessel to serve as a vitally necessary adjunct to our naval sea operations. Think of the position of an American battleship or fleet in a foreign port without a supporting merchant vessel to take out fuel oil and supplies. Its life would be limited to a few days or at most a few weeks.

#### **Help for the Navy**

The best type of merchant vessel for naval auxiliary purposes are the large transatlantic liners and the type of 535-footers, which are running in routes established by the shipping board to Europe, South America and two lines to the Far East. These ships can be sold to private owners if the subsidy bill is passed but they can not be sold, if it does not pass, except for transferral to foreign flags. Therefore, if we take \$25,000,000 as the average each year for the first five years, we have a merchant marine maintained, which can be used in time of war, for less than the cost of a battleship, or about half the cost of one of the battle cruisers.

One of the ways to aid our country to recover from business depression is to create trade routes and markets for our grain, cotton and farm products, and a larger market for our manufactured goods. The great trade routes which have been maintained in the last two years, particularly in the year just closed, have filled a vital and important part in the building up of trade and the return to prosperity, which is now becoming so evident. Take away this great and vital aid to our commerce, and you are going to deal a blow to all farmers, merchants and industries which will do incalculable harm in the years that are to come.

The farmer should be properly taken care of whereby he could get the aid to finance his crops as cheaply as pos-

sible in order to enable him to compete with the foreign producer of farm products. But, he must have American ships to deliver his products, as if the farmer is dependent upon the foreign ship, there will be many instances in the future where the foreign product, such as grain from the Argentine, may be carried at a cheaper rate of freight to the foreign markets in Europe than grain from the United States to Europe. With an American flag ship and an American merchant marine, the farmer is assured an outlet for the market and delivery of his goods that he can get in no other way.

The wages on the American ships are higher than those of any other ships of the world, and this piece of legislation now before the senate provides the means to enable the American shipowner to pay the higher wage.

#### **Can Hold Down Costs**

One of the great and vital needs of all steamship owners and operators is to keep their costs as low as possible, and this, in these days of modern tools being the most economical is capable of accomplishment only by continued activity in acquiring of new tools or the modernization of old ones. The shipping board has a considerable number of ships which are not of efficient type and which should be sold to American shipowners on agreement that they will convert them into modern vessels. Also the board could afford to loan money to the shipowners of such ships at a low rate of interest, in order to stimulate them to modernize ships that are not efficient and which, otherwise, would have to be sold for scrap iron or allowed to deteriorate into a worthless condition.

The diesel motor costs today only a little more than the reciprocating engine, but it costs in fuel to operate about one-third as much as the oil burning boilers which drive reciprocating engines. The shipping board can well afford to dispose of these inefficient ships because eventually they would have to be scrapped, and it would be giving work to shipbuilders and repair yards to sell these steamers with the provision of modernization. The American shipyard today is an industry greatly in need of additional work for its plants and an increase in the number of employes. This is another good that the new bill will do and that is to give a great deal more employment for the workers in American shipyards and repair yards. The more ships in operation the more repair work to be done.

Money should be appropriated in

the coming bill to pay a committee of engineers and marine architects, the members of which would devote their time to the advancement and development of marine propulsion and toward aiding the shipyards and shipowners in this development in every way possible. This committee would be of great practical value in the years to come.

#### **Keeping Trade Routes Open**

The shipping board has maintained a number of trade routes. It is of vital importance that most of these trade routes be continued, and that the American business man, manufacturer and farmer have a steady outlet for their products to all parts of the world. Take the case of the South American trade. The amount of tons of merchandise now moving by American express passenger and freight steamers to the Argentine, which is the first country to really feel a return to normal exchange, is 109 per cent larger than it was some 20 odd months ago. This increased percentage in business has been brought about by the maintenance of a regular route, by the fact that the ships which have been put into the route have been faster and more frequent in their sailings, and because of the good treatment to shippers and travelers by this route. As a result, we reach a point where the merchant and tourist come to rely on these ships for their own regular means of communication, at all times—not only the American merchant and traveler, but the merchant and traveler from Brazil, Uruguay and Argentine.

This proposed bill is going to mean the maintenance of these important trade routes at a cost which will be lower to the taxpayer than if continued under the present basis of government ownership.

You will be surprised to learn that there are 41 actual steamship men who are members of the British parliament, and that there are over 150 shipping men officially connected with the British government. That startling fact means that no matter what move any foreign nation makes, England, because of her governmental forces, is actively alive as to what each move of a foreign nation or business organization means to her own merchant marine, and immediate action is, therefore, possible on all sorts of problems which would not be possible for them if they did not have experienced steamship men in the various government positions.

Not only does the United States senator face the opportunity to save one-half the present taxes paid for

the maintenance of the shipping board in its operations, by voting for the new bill, but he faces the alternative that the American flag shall disappear from the seas. He will, if he fails to see that this bill comes to a vote and he fails to vote for it, place himself in a position of leaving a doubt in the minds of all Americans as to whether the influence of our British and German competitors has not in some way reached him through his friends or through the widespread

propaganda of the press which these foreign competitors of ours have been so successfully waging against this legislation, in the past year.

It is difficult for the average person to realize how ships develop good feelings between the people of the nations they serve, and with the cordial relations between these peoples grow warm friendships.

The American merchant marine is a vital and real factor in our growth. You can not imagine what it means

to see one of the great passenger and freight ships now operating in regular service to many of the most important parts of the world, arrive at a foreign port and have the peoples realize that we as a nation are furnishing this tool to bind the peoples of that nation more closely with the people of our own, in friendship and good relations for all time. Every American should make up his mind to go and see what the American ship is doing for the American people.

## Ocean Freight Rates

Per 100 Pounds Unless Otherwise Stated

Quotations Corrected to Feb. 13, 1923, on Future Loadings

New York to		Cotton	General cargo	ffFinished steel	From North Pacific	Lumber
	Grain	Provisions (H. D.)	Flour	cu. ft. 100 lbs.	Ports to	Per m. ft.
Liverpool.....	1s-6d—1s-9d	\$0.35	\$0.20	\$0.15	\$0.30	\$0.60
London.....	1s-6d—1s-9d	0.35	0.20	0.15	0.30	0.60
Christiania.....	\$0.18 to 0.20	0.35 to 0.40	0.47½	0.23 to 0.25	0.37½	0.80
Copenhagen.....	0.18 to 0.20	0.35 to 0.40	0.47½	0.23 to 0.25	0.42½	0.85
Hamburg.....	0.10	0.20	0.25	0.18	0.37½	0.75
Bremen.....	0.10	0.20	0.25	0.18	0.37½	0.75
Rotterdam.....	0.12	0.25	0.28	0.17	0.35	0.70
Antwerp.....	0.10	0.27½	0.22½	0.18	0.35	0.70
Havre.....	0.14	0.40	0.22½	0.23	0.40	0.75
Bordeaux.....	0.14	0.40	0.22½	0.23	0.40	0.75
Barcelona.....	0.20	0.55	0.40	7.00T	—	7.00T
Lisbon.....	0.20	0.75	0.50	7.00T	—	7.00T
Marseilles.....	0.17½	0.55	0.75	5.60T	—	5.00T
Genoa.....	0.17½	0.60	0.35	0.30	0.40	0.80
Naples.....	0.17½	0.60	0.35	0.30	0.40	0.80
Constantinople.....	0.20 to 0.23	15.00T	0.75	0.30	—	8.00T
Alexandria.....	0.20 to 0.23	15.00T	0.75	0.30	—	8.00T
Algiers.....	0.21	0.75	0.85	0.30	—	10.00T
Dakar.....	14.50T	.....	15.00T	—	—	10.00T
Capetown.....	10.50T	17.00T	17.00T	12.50T	—	12.50T
Buenos Aires.....	.....	20.00T	.....	—	20.00T†	6.00T†
Rio de Janeiro.....	.....	21.00T	.....	—	21.00T†	6.00T†
Pernambuco.....	.....	22.00T	.....	—	22.00T†	8.00T†
Havana.....	0.17½*	0.37½*	0.47*	0.17½*	0.94*	0.15*
Vera Cruz.....	0.35	.....	0.20	0.52½	1.05	0.30
Valparaiso.....	1.07	.....	0.70	0.45	0.80	12.00T
San Francisco.....	.....	0.40	.....	0.56	.....	0.30
Sydney.....	.....	18.00T	.....	—	18.00-24.00	9.00-12.00T
Calcutta.....	.....	16.00T	.....	—	—	10.00T
T—Ton.	†Landed.	†Heavy products limited in length.		*Extra charge for wharfage.		

### Principal Rates To and From United Kingdom

	s	d		s	d
Grain, River Plate to United Kingdom.....	21	3	Coal, South Wales to Buenos Aires	14	3
Coal, South Wales to Near East.....	12	6	Iron ore, Bilbao to Middlesbrough.	7	7
Coal, United Kingdom to United States....	7	6	General British market, six months time charters, per ton per month	5	0
Pig Iron, United Kingdom to United States.	13	0	—	—	—

Oriental Ports....	\$10 measurement ton
Metal Junk	
Oriental Ports.	\$10.00
Scrap Copper	
Oriental Ports.....	\$5.00
Salt Herring	
Oriental Ports....	\$8 measurement ton
Machinery	
Oriental ports.....	\$7.00
Automobiles	
Oriental ports.....	\$8.00
General Merchandise	
Oriental ports.....	\$9.00

### Bunker Prices

#### At New York

	Coal alongside per ton	Fuel oil alongside per barrel	Diesel oil alongside per gallon
Jan. 9, 1922	\$5.50 @ 5.90	\$1.25	5.50 cents
April 6.....	5.30 (@ 5.90)	1.16½	4.75 cents
July 1.....	8.10	1.26½	4.75 cents
Oct. 13.....	8.55	1.45	5.50 cents
Jan. 11, 1923	7.90	1.50	4.75 cents
Feb. 10.....	7.50	1.66½	4.65 (@ 5.40c)

#### At Philadelphia

	Coal alongside per ton	Fuel oil alongside per barrel	Diesel oil alongside per gallon
Jan. 9, 1922	\$5.10 @ 5.35	\$1.50	5.00 cents
April 10.....	5.90 @ 6.25	1.05	4.25 cents
July 1.....	8.00	1.15	4.25 cents
Oct. 13.....	8.30	1.47	5.00 cents
Jan. 9, 1923	7.30 @ 8.00	1.57½	5.00 cents
Feb. 10.....	6.65	1.66½	5.00 (@ 5.65c)

#### Other Ports

Boston coal, per ton	\$9.57
Boston, oil, f. a. s., per barrel.....	\$1.53
Hampton Roads, coal, per ton t.i.b.	7.15
Seattle, coal, per ton	7.50
Cardiff, coal, per ton	20s
London, coal per ton	24s
Antwerp, coal, per ton	25s

# Cargo Containers for Ocean Use

**Big Steamship Line Is Testing Value of System  
Which Has Proved Economical on Railroads**

**C**ARGO containers for handling freight are now in use, and have been for some time, for inland water transportation and for shipments by rail. Referring to the accompanying illustrations, Fig. 1 shows several containers on the railroad platform at Birmingham, Ala., with the contents being transferred to freight cars, while Fig. 2 shows how conveniently general cargo shipments can be carried in conjunction with bulk cargoes. This view shows also a method of unloading containers from the lighters.

One hundred of these cargo containers were ordered from the Ingalls Iron Works Co., Birmingham, Ala., by the United States railroad administration shortly before the railroads were turned back to their owners. These containers, as shown in Figs. 1 and 2 are used for handling merchandise on the scows of the Warrior river service. They are made of steel plates and structural sections and are 8 feet 2 inches square and 9 feet high, or approximately 600 cubic feet in contents, and are designed to carry a load of 10 tons in weight, with entire safety.

Double doors are fitted on two sides for convenience in loading and unloading from either side. A slight pitch is given the roof to form a watershed while the container as a whole is weather proof. Containers are painted inside and out and the rivets are driven so that they will not damage the cargo. Each container is fitted with a cable sling, and with the proper capacity derrick may be quickly picked up and moved as desired.

In the Warrior river service, the containers were found to be of value in saving freight from damage, in reducing stevedoring costs and in utilizing space which would not have been suitable for loose cargo. Containers for rail shipments were, as far as known, first proposed in a practical manner by E. C. Church now transportation engineer on the technical staff of the Port of New York Authority. The report of the Port of New York Authority dated Dec. 31, 1921 states in regard to container units, "Great economies are expected from this system through saving in labor, preventing breakage and theft, through

reduction in cost of equipment, through easy transfer of containers from car to float, terminal or truck chassis; by eliminating individual package handling and by application of mechanical methods for handling containers."

Rail shipment of less than carload lots of freight are now made in containers on the New York Central lines between New York and Buffalo and Chicago and Cleveland. F. S. Gallagher, in an address on Oct. 10, 1922, before the Society of Terminal Engineers, New York, discussed the developments in use of containers in rail shipments along the following lines. With the use of containers freight cars can be quickly released during shortage due to possibility of immediate unloading. The manual handling for each less than carload shipment is greatly reduced, as 13 manual handlings are necessary for each shipment, 20,000 pounds of freight requiring on this basis man power to lift 260,000 pounds. Crating is eliminated as well as the expense of numerous checkings and records. Waiting at the freight house, and loss of time in loading truck with



FIG. 1—TRANSFERRING FREIGHT FROM CARGO CONTAINERS TO CARS ON PLATFORM AT BIRMINGHAM, ALA.

individual packages is eliminated, saving from 1 to 2 hours.

The saving on loss and damage is enormous. Records show that under the present system, the railroads and express companies return to shippers more than 8½ per cent of the revenue on account of loss and damage, and it is anticipated that a great part of this loss can be saved by the container system.

The general containers now in use on the New York Central lines are 7 feet wide, 9 feet long and 8 feet high with a carrying capacity of 7000 pounds. They will fit the standard gondola car. The gross weight is within the carrying capacity of a 5-ton truck. They are built of steel throughout except the floor which is made of laminated wood, and are well braced so that there is little chance of damage with ordinary handling. Handling less than carload freight by the container system is in its infancy and consequently it is impossible to give any definite figures on costs.

The foregoing has a definite and important bearing on any analysis of the possibilities of using cargo containers on ocean going vessels. Railroads and inland transportation routes independently and jointly as the case may be are feeders for ocean going vessels. Comparatively small amounts of freight originate within the port itself. In a general way, therefore, if it were possible and practicable (which it may be) the containers used should be standard for all three modes of transportation, and also as well for the motor truck, to attain full efficiency as represented by store door delivery. Motor truck delivery would limit the practicable weight of a standard cargo container loaded to the capacity of a 5-ton truck.

#### Now Used on Ocean Line

In the accompanying illustrations, Fig. 3 represents one of thirty cargo containers constructed by the Ingalls Iron Works Co. for the Munson Steamship lines and now in use in the regular services of the steamship company. Their introduction into use on ocean going vessels is too recent for any definite expression from the steamship line as to their practical usefulness. These cargo containers are somewhat different from those used in the Warrior river service and also from those used by the New York Central lines. These are built of steel plates and structural shapes throughout and are 6 feet by 7 feet by 7 feet high giving a capacity by volume of 294 cubic feet, and are designed for a load of 10 tons in weight. Doub-

ble doors are fitted only on one side. Cable slings are furnished attached for easy handling. According to the builders, these containers can and will be placed on deck, thus utilizing space not available for this class of cargo without them.

An innovation of this radical nature in method of carrying general and special cargo on ocean going vessels can not be accepted off-hand as successful. A thorough and practical demonstration is required of an all-around considerable saving by the use of containers. In the meantime, with such facts as are at hand, certain deductions may be made which will point to the possible advantages and disadvantages in their use. Taking the particular example of a cargo container as shown in Fig. 3 for use on ocean going vessels, the following advantages may be anticipated:

- 1.—Reduction in stevedoring time and costs and ease of handling to and from ship.
- 2.—Complete protection of cargo from pilferage, damage and loss.
- 3.—Possibility of utilizing space otherwise not suitable.
- 4.—Eliminating cooperage charges and reduction in checking costs and simplification of records.
- 5.—Less elaborate and expensive crating and packing of individual packages.
- 6.—Segregation of shipments, saving time in delivery.

To offset these anticipated advantages the following considerations are obvious:

- 1.—Expense of initial outlay and upkeep.
- 2.—Difficulty in full use of the containers on both outbound and inbound trips, that is, if cargo is available only one way, the carriage empty one way.
- 3.—Additional space and weight, due to weight of, and space occupied by, the container and some difficulty in full packing of a restricted space such as the container with the odd sizes of boxes, crates, bags or bundles encountered in a general cargo shipment.

Used under certain conditions in combination cargo and passenger ships maintaining an express service and rarely loaded to capacity either outbound or inbound, the above disadvantages under 2 and 3 would have no appreciable effect except the minor one of handling empties.

Cargo is charged for on either weight or measurement at option of the ship. A full cargo may mean any one of three conditions: 1.—That the ship's cargo cubic space is completely filled with cargo but that the weight of this cargo does not bring the ship down to her statutory load line; 2.—As in 1, except that the weight is sufficient to

bring the ship down to her statutory load line; 3.—That the ship's cargo cubic space is not completely full but that the weight of this cargo brings the ship down to her statutory load line.

The combination of space and weight which is universally recognized as approximating closely the second condition is 40 cubic feet to a ton of 2240 pounds, which is equivalent to 56 pounds per cubic foot. If any shipment weighs more than 56 pounds per cubic foot, it is more favorable to charge by weight, if less than 56 pounds per cubic foot the shipment is charged for on the basis of space. The tendency of this arrangement is to equalize the revenue of the ship for the varying kinds of freight offered and so make the charge proportionate to the service rendered.

#### Efficiency of Containers

It is, therefore, of interest to investigate the effect, first on space occupied, second on weight, using a cargo container as shown in Fig. 3. As the thickness of the plates and size of angle stiffeners are not given, assuming 3/16-inch thickness of plate and 2-inch angles:

	Cubic Feet
Contents of container = 7' x 6' x 7'	= 294
Space occupied by stiffeners and thickness of plating, 2' 2" x 7' x 7' x 2	= 18
12	12
2' 2" x 7' x 6' x 4	= 31
12	—
	49
	49
Space occupied by container	343
Space lost in stowing on account of difficulty in completely filling exact space, arbitrarily taken at 6" x 7' x 6' .....	21
	—
70	70

Space in cubic feet occupied by cargo ..... 273  
70

Loss of space ..... — = 20 per cent.  
343

If it is claimed that in fact no space is lost due to stowage of cargo in containers over that lost if cargo is stowed directly in hold of ship, the loss of space would be reduced to —  
343  
= or 14 per cent.

The estimated weight of the container would be 1.3 tons. On the basis of weight of shipment 40 cubic feet to

the ton, the container would carry  $294 \div 40 = 7.3$  tons and, therefore, the weight of the container would represent 15 per cent of the total. On the basis of maximum weight of cargo in containers of 10 tons, the weight of the container would represent approximately 12 per cent of the total weight.

From the above, it is seen that the use of containers based on the stated assumptions and estimates involves the loss of from 14 to 20 per cent in

at the port of destination, it would seem entirely feasible to make the container a good paying proposition.

#### Changes in Design

Certain features of the cargo container shown in Fig. 3 might be modified to advantage. Angle iron stiffeners are used for bracing and stiffening. The greatest care is exercised in building a ship to eliminate all protuberances, sharp corners and edges in

deck would need to be secure so that they would not shift, and water would undoubtedly find its way into contact with the cargo carried in them. Under certain ideal conditions in fair weather and short voyages, they might be carried on top of the hatches and protected with waterproof canvas covers.

A steamship company owning and using cargo containers may find them convenient and profitable in its opera-

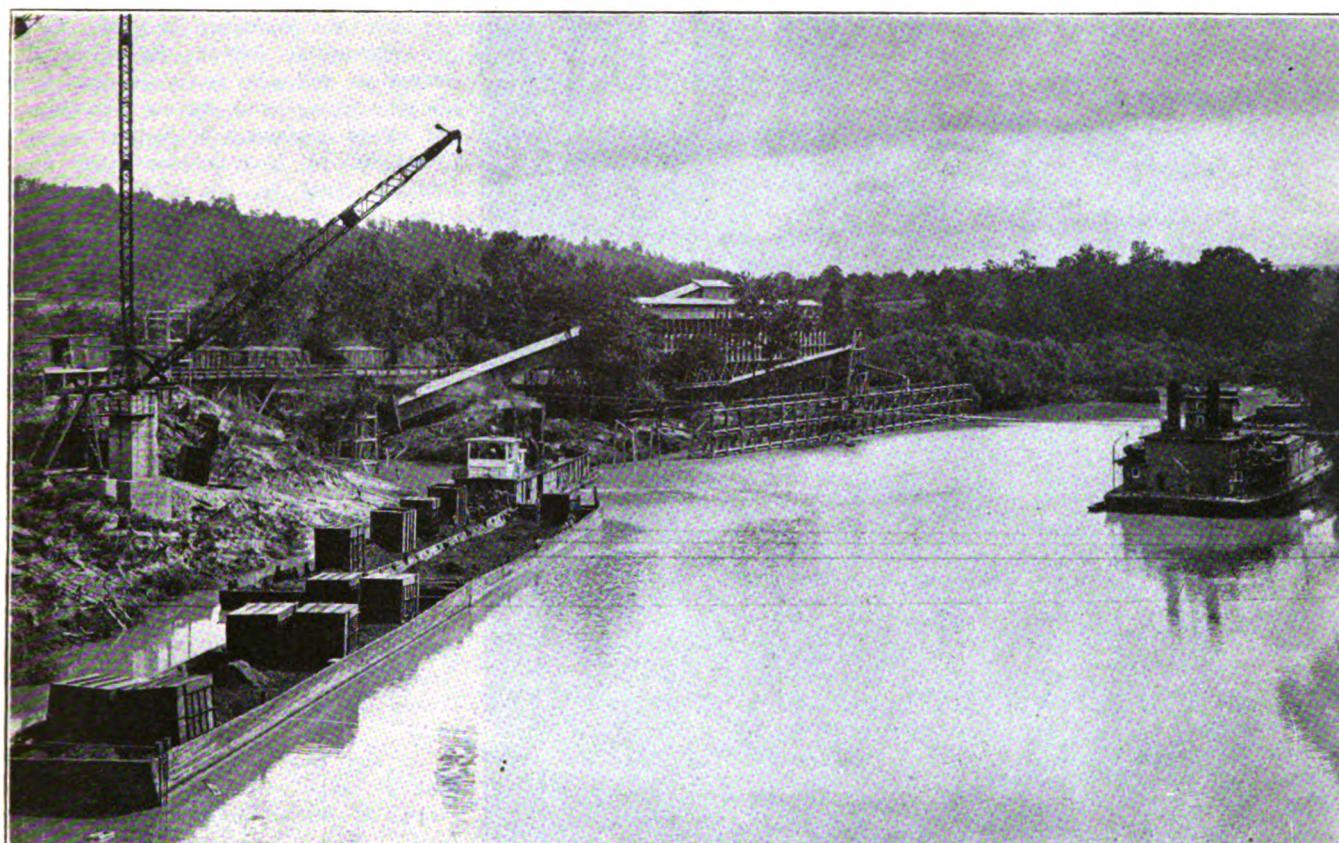


FIG. 2—SCOWS ON THE WARRIOR RIVER WITH CONTAINERS CONVENIENTLY STOWED ON TOP OF BULK CARGO. THE CONTAINERS ARE LIFTED FROM THE LIGHTERS TO RAILROAD PLATFORM BY MEANS OF THE DERRICK

space and 12 to 15 per cent in weight. These losses may be wholly or in part made good if in practice it works out that considerably lighter and less bulky packing is found to be required for shipments intended for the containers.

Estimating the cost of a container as above at \$250, allowing for depreciation of 15 per cent, a return of 10 per cent on the investment will mean a gross return of \$62.50 per year. Using the container 15 or 25 times in the course of one year would mean that a saving of 52 cents and 31 cents respectively must be made in total costs of loading and discharging for each ton of cargo on the basis of 8 tons average to each container. Considering the fact that the cost of handling general cargo in New York varies from \$1.15 to \$1.65 per ton, and adding to this the cost of handling

order to save the cargo whips and the cargo from damage. By the same token any box, like a container, should not have sharp corners or projections as these are likely to catch on hatch coamings, or to tear and cut into other cargo, and also cause damage to the container itself. If angle stiffeners are used, the ends should be beveled off. Flat plate rolled into U-sections would be preferable to angle irons and cupped round corner caps similar in shape to those used for trunks could be fitted to do away with the sharp corners.

The success of any effort to carry these containers on deck is doubtful. As the containers are not strictly watertight, only weather-proof, it would not be safe to place them in the open on the weather deck and carry in them any cargo subject to damage by water. In heavy weather, their lashing to the

tions. The company's problem is to handle the great variety of assorted freight offered in the most economical manner after delivery to their docks. If the cargo containers will serve as a medium of reducing costs for the steamship operator, they will come into use for this purpose, without doubt. The problem of handling shipments on freight does not, however, begin or end with the ship operator. The problem of shipping begins at the source of the product and ends at the door of the consumer or distributor. Depending on the location of the source and point of destination, the agencies are varied and comprise any one or all of the following: Railroads, inland water craft, automobile or horse drawn trucks and ocean going ships.

Greatest economy in handling freight from source to destination involves as far as possible complete co-operation

and uniformity in method on all of these agencies. Is it not possible, if properly worked out, that the cargo containers offer an efficient solution of the problem of freight handling equally applicable to each of these agencies? If so, the design and use of the container must be such that it will meet the limitations imposed by each vehicle used.

Three different sizes of standard containers are proposed. For carrying the

in the standard railroad freight car of the gondola type with height limited to that of the usual box car. These dimensions would fall in line with those of the container illustrated in Fig. 3 especially built for ship use. For shipments which must be transported by truck from factory to railroad or from railroad terminal to the ship, or from sources within the city to the ship, the maximum gross weight of container and contents should not

reach its destination in the West Indies, South America, Europe or Africa in perfect safety and order, and that by some means a steady supply of empty containers was always on hand for use as needed and that he found his freight charges were no greater than formerly, he would no doubt be greatly pleased and satisfied with the container system of shipment. But there are some extremely knotty problems in connection with working out such a convenient system. Who is to own the container and who is to be responsible for the return of the container and who is to see that there is an adequate and not an over supply of empty containers at hand as needed? Furthermore, it is obvious that containers must be idle a minimum of time if they are to pay well.

A possible solution might be for a separate organization to own the containers and to act as forwarders by truck, rail and steamship line, attempting as far as possible an interchange of freight between different points, and so reduce the idle containers to as low a point as might be consistent with the disparity in demands for the transfer of freight between any two points. The fullest use of the container can only be attained by delivering the container packed, marked, locked and sealed to the steamship company. This surely would reduce to a minimum the charges for stevedoring, watching, checking and tallying, on that class of cargo which could go in such containers.

At any rate, the experiment in the use of cargo containers is now under way, on inland crafts, railroads and ocean going steamships. Results so far indicate their usefulness in particular instances. If they prove entirely successful on ocean going ships, their adoption will mean an important step in improvement on present methods of handling general cargo of certain kinds, in the saving of costs and the elimination of loss and damage. The most logical way of introducing these containers would seem to be in handling certain definite kinds of cargo, regularly offered, which in its nature is difficult to handle under present conditions. If possible, through a study of customary shipments, they should be placed on a run where return cargoes may be received. In other words, a definite program should be worked out for use of containers having in mind commodities which are now being shipped.

#### Some Problems to Solve

Assuming that each shipper had conveniently at hand the proper containers and that he could proceed with packing, lock and seal each container, properly mark it for its destination and move it to the platform at his railroad siding or place it on a truck on the beginning of its journey and that from then on he could forget about it, assured in his mind that it would

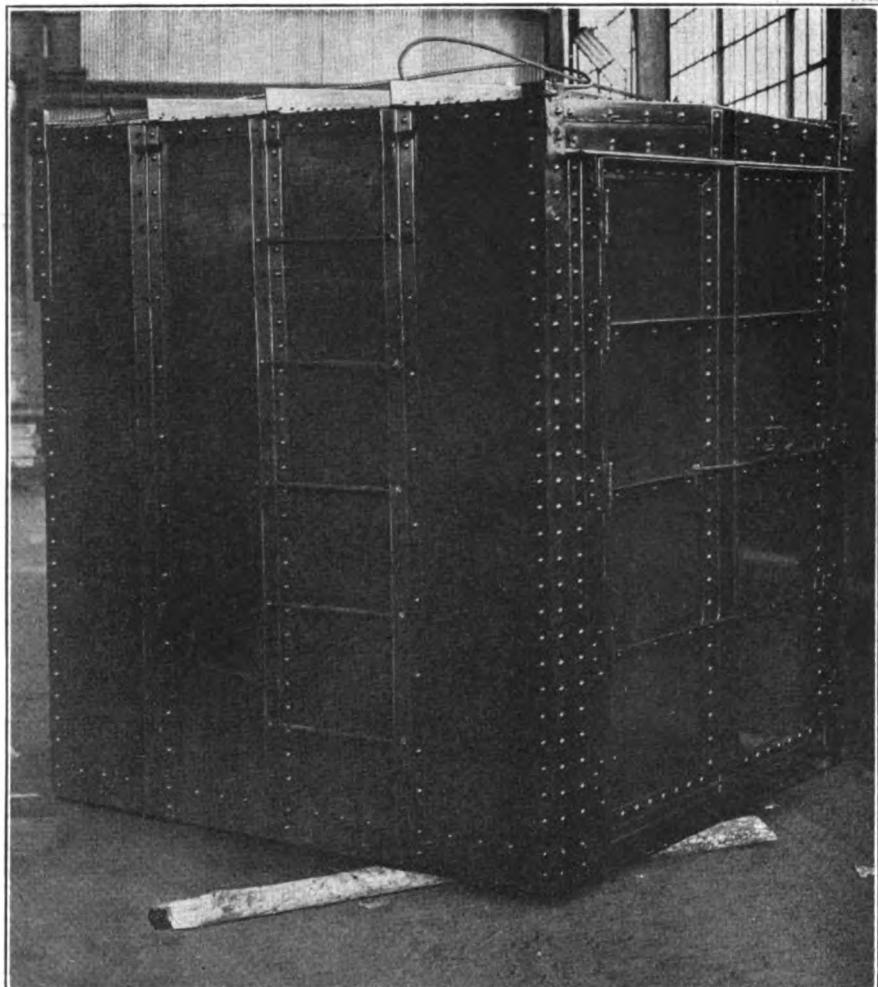


FIG. 3—ONE OF THE CARGO CONTAINERS RECENTLY CONSTRUCTED FOR THE MUNSON STEAMSHIP LINE

products of producers or manufacturing plants exporting direct, with railroad connections at their plants and with the railroad terminating at ports from which shipments by sea are to be made, so that the container units may be transferred directly from cars to ship or lightered to side of ship, the large containers of from 7 to 10 tons capacity could readily be used. Packing of such containers could then be done by the manufacturer or producer at his own factory or plant with the same care, neatness and dispatch which now applies to present small individual packing boxes. The dimensions of the container would be limited so that they would stow properly

exceed the capacity of a 5-ton truck. For certain classes of shipments of this sort and under certain conditions, a container of gross weight, including contents not to exceed  $3\frac{1}{2}$  tons, might be found to work out favorably.

CAPT. JAMES GRIFFITHS, Seattle, a pioneer shipping operator and owner, was recently married to Mrs. Ethel Ayres, Vancouver, B. C. Mr. and Mrs. Griffiths are on an extended foreign trip.

# Nation Needs Ships and Yards

Country's Welfare in Time of Peace and Existence in Days of War Require National Strength on the Seas

BY ROBERT HAIG

THE assets of an individual, a corporation or a nation are the quantities and qualities that lie back of and form the substance on which the rest of the world base their estimate of value, either in an individual, corporate or national sense. In seeking to declare shipping and its allied industry shipbuilding, a national asset, let us examine what may be considered as constituting national assets.

(1) All that shall be carefully and wisely considered as contributing to, and conserving the welfare and dignity of the sovereign rights of a people.

(2) All that shall work toward the development and extend the use of the country's natural resources.

(3) Whatever shall best employ the physical and mental activities of the people, taking into consideration the geographical surroundings and climatic conditions most suitable to the characteristics of the people.

(4) The continuous, but not unbalanced, increased productiveness of the nation's major industries—agriculture, mining, manufacturing and transportation—working toward higher economies in results obtained for effort expended with enlarged capacities for output to meet the demands a people may be called upon to face, either in a time of peril to the state or when a commercial emergency may arise.

## Transportation Control Is Essential

Under the four headings just stated, it is submitted lie all the thought and effort that enter into a nation's daily life, and a moment's consideration will show how vital it is, that each of the great industries, agriculture, mining, manufacturing and transportation, should grow and function together; that they should develop and keep in step, the expansion and capacity of transportation being developed on the one hand to meet the demands of increased productiveness on the other.

At all times, productiveness in any quarter is governed by the transportation to be obtained, and where

Delivered before the National Merchant Marine association at Washington, Feb. 7. The author, Robert Haig, is vice president of the Sun Shipbuilding Co., Chester, Pa.

transportation is lacking or inadequate, business languishes, the country's assets are impaired and the people suffer through lack of work, food and fuel. Transportation is the life blood of a nation, and a look abroad will demonstrate how keen the other nations of the world are to maintain and develop their marine transportation, for they know only too well that the nation that has neglected to maintain, or failed to establish for itself a place on the seas, is held in poor esteem and has no voice in the councils of nations.

The one great industrial effort discernible in Germany at present is her feverish endeavors to rebuild her merchant navy, as she knows she can not longer live upon herself, but must get out into the world's international trade as the first real step toward the upbuilding of her affairs. Other nations may carry and haul for her, but that will not give the employment to her people nor the wealth she so urgently needs, consequently she is building ships and more ships, for in that direction her hope lies.

In this great country of ours, it is not tolerable that we should either in peace or war be dependent on any other nation for our international trade conditions.

Shipping to some nations is as the breath of their nostrils, and to us now that naval disarmament is likely to reduce our warships to almost the vanishing point, the necessity of a real mercantile fleet is vitally important.

Shipping neither here nor elsewhere can continue unless it is supported by well equipped, up-to-date shipyards, and shipyards will not continue to exist and to do good useful work unless they can find employment to sustain the staffs necessary.

## Lack of Trained Men

Shipbuilding is a complex art, requiring for its execution educated and specially trained men, and if shipbuilding should be allowed to decline, as it did years ago, these men will eventually drift into other channels and the art and practice of shipbuilding with all the valuable research of years, will be lost.

In the latter part of last century,

when the United States navy commenced the building of torpedo boats, many builders arranged for and obtained plans from Europe for this type of construction, for the reason that we had not kept ourselves abreast of the times, and should such a policy be again followed and our shipping industry be neglected, who knows that we always will be able, should the necessity arise, to have other nations supply our wants?

During the late war, as all the world knows, we built an enormous fleet of ships, probably the greatest fleet of new merchant ships the world has ever seen, and while some of the ships are doubtful in quality and unsuitable in many respects for business, yet there is a very large fleet of good useful ships now under control of the shipping board, that if given the same consideration as has been given to every other industry in the country, will become a great and active national asset.

## Unable to Help Ourselves

Shipping is essential to our international trade.

Shipbuilding is necessary for expansion and replacement of wastage of ships in operation. Shipbuilding and ship repair are vitally necessary in time of war, as it was demonstrated beyond question that no nation possesses in government yards 5 per cent of the capacity in docks and personnel to make good the tremendous amount of repairs required by fleets of fighting ships in active warfare. The same causes and conditions apply to merchant ships. For that reason, if for no other, shipping and its kindred industry, shipbuilding, has an undisputable claim upon our government for its serious attention; so that at all times our sea communication will be maintained by American ships, built in American shipyards.

When either an individual or a nation are in peril, their greatest hope for safety lies in the possibility of being able to help themselves, and can anyone imagine our American battle fleets engaged in active warfare, defending our extensive seaboard and being able to continue to face the enemy unless there were the private

March, 1923

shipyards and dockyards to repair the ravages of warfare?

It could not be done. This was abundantly proved in the late war, where even in England where shipbuilding and ship repairing is the principal industry of the country, and where there are necessarily very large numbers of drydocks and repair yards, both government and private yards, and yet they could not keep abreast of the work demanded.

Shipyards and drydocks cannot be built in an emergency over night, as we learned to our cost in very recent years, for although we spend hundreds of millions of dollars on building and equipping shipyards, not one of them delivered a ship until after the close of the war, and it was on the private yards and the private yards alone that the government had to depend for the ships sent to sea.

The private yards unstintedly gave their utmost, enlarged their capacity, doubled and trebled their staffs, trained great bodies of men for the task facing us as a nation. No industry in the country made such sacrifices and extended their commitments as the shipbuilding industry did to meet the wartime demands, and to the private shipyards this country will always owe a deep and lasting obligation.

#### Protect All But Shipping

There is today under the American flag registered for foreign trade 11,000,000 tons of ships, being about 1000 per cent increase over our tonnage of 1914. During the years 1918 to 1921, we in this country built and completed ships equal in amount of tonnage to that built by the rest of the world before the war in a like period of time, showing how our capacity was developed and how shipbuilding with all its allied industries had become one of the major industries of the nation.

Consultation of our various tariff acts will disclose that every line of industry is protected to a greater or lesser degree, except our ships engaged in overseas trade. And if it has been considered wise to protect our industries on land, why should there be any question or doubt about affording protection to our merchant marine that is so vital a part of the nation's first line of defense, for it is beyond question true that if we were unable abundantly to supply our naval ships in time of war with the necessary supplies, there would be a very short life for our fighting ships upon the sea. A nation without ships is a nation without defense; the late war proved this

forcibly without a shadow of doubt.

This was abundantly proved when the war broke out in 1914; France immediately called upon England to supply her with hundreds of ships to enable her to keep the seas and obtain the necessary supplies and even England with the greatest merchant fleet in the world suffered losses of such magnitude as appalled civilization, and for a time caused them to despair of getting through.

In the year before the war, we paid to foreign countries upward of half a billion dollars in freight charges and insurance on our products, which earnings might well have been made by American ships had we taken thought for our nation's welfare and for our future needs. When it is understood that one half of every dollar that goes into the cost of a ship built is paid out in wages, it is readily seen how necessary for the full employment and prosperity of our working classes it is that this important industry should be put on a sound basis.

The American people want their own ships to carry their own burdens and will no longer be content to hand over their money to enrich other nations and at the same time allow American industries to languish and in time become extinct.

History in shipbuilding is about to repeat itself.

When the great shipowning nations of Europe, about the middle of last century, almost over night turned from wood shipbuilding to iron and later to steel shipbuilding, we lagged behind and as the years passed we practically dropped out of the race, so that by the year 1900 we carried little more than 9 per cent of our products, and that was mostly in oil tankers and in a few passenger vessels we had where we were glad to get the cargoes to help put the vessels in sea going trim. That was our unenviable position at the close of last century as a maritime power.

#### Remaking World Fleet

Today the world is on the eve of discarding the steam driven vessel and installing the diesel engine with its great and manifold advantages of lower costs of operation, so great that our failure to grasp this opportunity to encourage our shipowners to get out and secure for the country the full advantages of this stupendous change will be shortsighted, will be almost criminal and will be a loss that cannot readily be repaired.

America that has led the world in the development of the oil industry, is pre-eminently fitted and deeply in-

terested in the diesel engine for ship and land power, and will welcome and encourage this change. Shipowners are eager to make full use of the opportunity to again show American ships trading on every sea, equipped with the best that can be devised, manned by native crews, fitting in every respect to represent a great nation.

#### Will Use Capital and Labor

A subsidy such as has been proposed cannot be otherwise than a benefit by employment of the tonnage now lying idle, by employing American capital and American labor to build more ships, with the corresponding advantage to the country, for money earned by both capital and labor in American ships comes home and is spent at home, whereas money earned by foreign capital and labor on foreign ships carrying our goods, is taken out of this country and sent abroad to enrich foreign nations.

Subsidy is necessary and should be granted on merchant ships from a military point of view, as neither the army nor navy could operate anywhere abroad without a strong fleet of merchant ships at their command.

Subsidy should be granted to shipowners to encourage them to invest in our present shipping property and reduce the tremendous losses we are now suffering by their depreciation in physical condition, and of lowered values, which losses per year far exceed the amount of the proposed subsidy.

Subsidy will encourage our shipowners to build where necessary, special types of vessels to open up and develop new trade routes with the resultant increased business that will be brought about.

Subsidy will encourage the shipbuilding yards to keep abreast of modern practice, to investigate and develop the most economical forms of power and constructions, so that American ships will be in the forefront in type, quality and ability to perform.

Subsidy of American ships is an economical adjustment of our national conditions in respect to similar conditions prevailing elsewhere, and our claims for subsidy can be justified and are equitable in relation to the other industries of the country.

A subsidy granted at this time will be sound business; it will re-establish our mercantile marine which we now have, by making it a sound and safe investment which in a few years will be on a par with our other great industries, strong and self-sustaining.

# What the British Are Doing

Short Surveys of Important Activities in Maritime  
Centers of Island Empire

THE Shipbuilding Employers' federation has issued a denial of a statement lately made by John Hill, president of the Federation of Engineering and Shipbuilding trades that the "shipbuilding employers along with others are hatching a scheme to increase the working hours of all trades and their own industry in particular." The employers state that "the hours worked in shipbuilding, engineering and the majority of the country are already as great as or greater than what is proposed in the case of the builders and miners. It is simply an effort to recover an economic position on the part of those industries where the hours are at present abnormally short, and has no bearing whatever on those industries where the hours worked are already longer."

\* \* \*

A NEW scheme is under consideration at Middlesbrough for the construction of a ferry landing and docks at an approximate cost of £20,000.

\* \* \*

INDICATIVE of the improvement in British shipbuilding conditions, is the recent report of Lloyd's on work in the shipyards. The volume of construction is still well below figures held during the period of greatest activity but new work is beginning to overtake the tonnage launched. New tonnage commenced was 283,000 tons below launchings in the first quarter of last year; 110,000 tons below in the second quarter; 225,000 tons below in the third quarter but only 29,000 tons less in the last quarter. The detailed British figures are:

Quarters	Commenced. Gross tons	Launched. Gross tons
March .....	51,008	334,352
June .....	38,877	148,886
September .....	82,428	307,232
December .....	231,187	260,588
Total .....	403,500	1,051,058

\* \* \*

ARTICLES by an expert, which have appeared in English newspapers, endeavor to explain why so many ship repairing contracts have been placed on the continent rather than in British yards. It is said that piece-work premium bonus or some other form of payment by results is almost universal on the continent, whereas such practices are limited by British unions who never miss an op-

portunity to obtain extra allowances. Latterly it is said, the English workman has adopted a more favorable attitude on this point.

The Dutch shipyards benefit also from German steel placed in Holland at £6 10s per ton inclusive, whereas the British price to British firms is £9 per ton with extras in addition. The English steelmakers are not blamed for this as it is considered they have made every possible concession in view of their own costs of production. It is generally admitted that the English workman is becoming less obstinate in regard to certain details connected with the ship repairing.

\* \* \*

THE River Clyde Shipbuilding works which for some time past has been operated by the Lloyd Royal Belge Co. of Antwerp, has lately been acquired by the Australian Steam Navigation Co. Ltd., and is to be reopened shortly for shipbuilding on an extensive scale. During the occupancy by the Belgian company, a number of vessels have been constructed for Belgian owners, but the yard was closed down in 1921 owing to the high cost of construction and the difficulties of exchange between Great Britain and Belgium.

\* \* \*

RECOVERY of the shipping industry in the neighborhood of Cardiff has led to the placing of orders for 20 new steamers by Cardiff shipowners with builders on the northeast coast and in Scotland. Several Cardiff firms have placed orders for boats ranging from 1200 to 4000 tons burden.

\* \* \*

TURNER DAVIDSON & Co., Ltd. who are brokers for the Australian commonwealth government line of steamers, in their shipping report state there are signs that the gloom of the two preceding years is beginning to lift. As an instance of the unprofitable prices, they mention that early in January 1922, a 6800-ton single deck steamer built to a good specification was sold for about £61,500 equivalent to about £9 per ton, whereas in November of the same year, an absolute duplicate ship was sold for

£55,000 equivalent to about £8 2s per ton.

In order to keep their yards working, shipbuilders have generally quoted the low cost price to obtain the few contracts available. Freight rates have not yet advanced sufficiently to permit a profit and although the quantity of laid up tonnage has been reduced, little encouragement is found in the freight market to enter into new commitments for tonnage.

\* \* \*

A LARGE hydraulic pumping installation is to be installed at the Bute dock, Cardiff. With the object of remodeling the hydraulic and tipping apparatus, the Great Western Railway Co. proposes to spend £250,000. Electrically driven turbine pumps are to be installed in place of an obsolete type of engine. The first contract has been awarded to the Pulsometer Engineering Co. Ltd., Reading, for the installation of these new pumps.

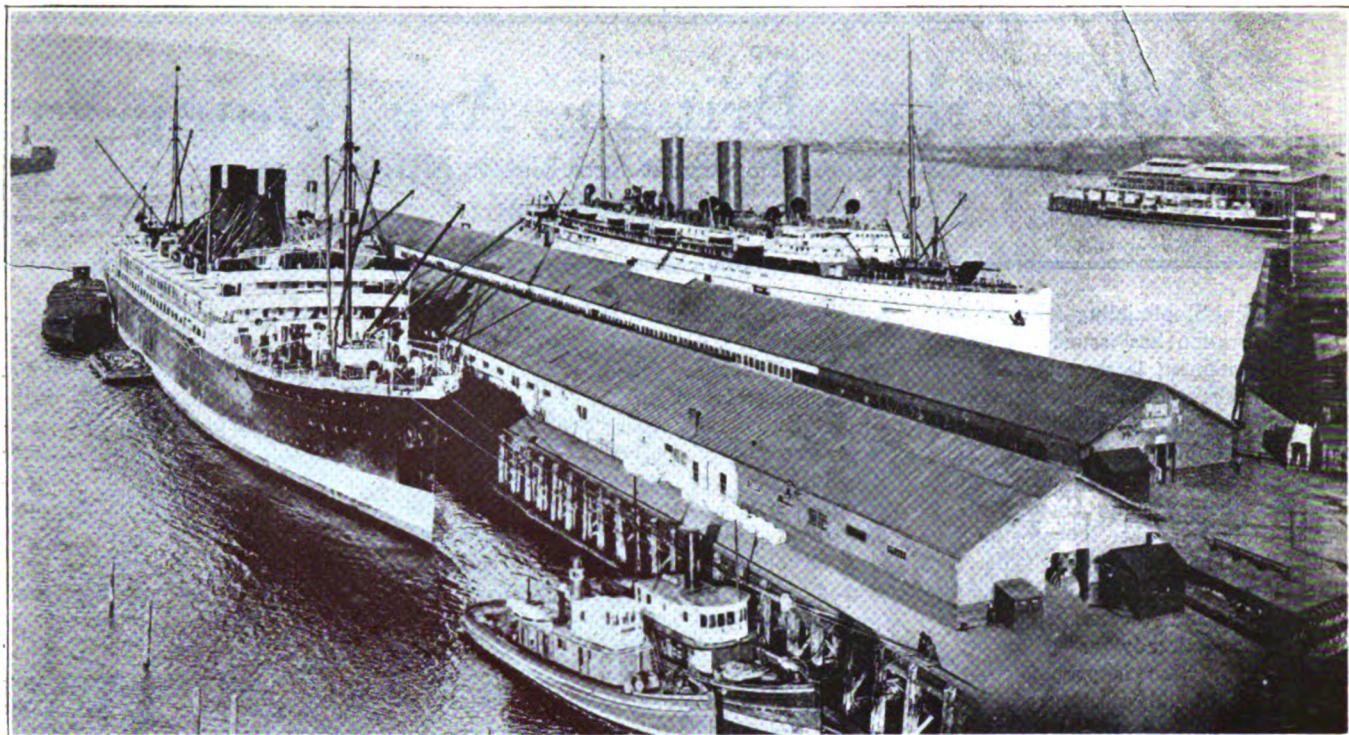
\* \* \*

A SHARP controversy is still raging over the refusal of the workmen to operate on a 3-shift system at Cardiff and other docks with the object of relieving congestion. The men are strongly resisting the change and complain that some of the delays are due to want of management, among which they mention the delay in the shipment of coal from the collieries, the nonarrival of ships, the lack of berths for ships waiting to be loaded and various other matters which they say would not be remedied by the installation of a third shift.

\* \* \*

REVENUES of the Manchester ship canal, which connects the city of Manchester with the Mersey river and thus with the sea, in 1922 was £1,332,490 (\$6,200,000), an increase of £135,415 (\$630,000) compared with 1921.

Japanese shipyards are being converted in part to the manufacture of other engineering products. Water pipes and railroad cars are being built in the Fujimagata yard; locomotives, tenders, bridge girders, oil tanks, steel poles and railroad cars are being fabricated in the Kawasaki yard; and airplanes are to be manufactured in the Mitsubishi and Kawasaki plants.



Port Facilities at Vancouver, Part of Which Are Shown in This View, Are To Be Increased by Additional Piers and Elevators

## Grain Trade Develops Vancouver As Port

VANCOUVER has sometimes been termed the potentially greatest city of the Dominion of Canada. Students visioning the vast volume of trade the future is to bring out of the Orient, the greater awakening to the significance of the Panama canal, and taking into account Canada's great natural wealth, have gone so far as to predict for the port a rank of prime importance on the Pacific coast. Whether Vancouver will ever outdistance the great St. Lawrence port, Montreal, as an outlet for dominion produce or secure the larger share of the Oriental trade coming to the Pacific coast of North America is decidedly problematical. But undeniably Vancouver is making a strong bid for fame and no student of North American commercial affairs can neglect to reckon with the post-war progress of the Canadian Pacific port as a significant factor in the trade of the continent.

In common with the rest of the dominion, Vancouver emerged from the war with a newer sense of its importance, which effected a stimulus in activities of every nature. Two events since have taken place to encourage the port as to its importance in the outlook on world trade affairs. One of these was the passing of the emergency tariff by the United States and the other the proving that western

Canadian wheat could pass through the torrid temperature of the Panama canal zone without suffering any injury. The new tariff has sent the bulk of Canadian grain to Canadian ports instead of across the border and the possibility of shipping grain to Europe via Panama permits Vancouver to vie with Atlantic ports. In the years to come more grain must pass out of the dominion by Canadian ports and Vancouver is destined to receive yearly an ever greater proportion of the increasing yields of the provinces of Manitoba, Saskatchewan and Alberta.

### New Use for Panama Canal

In the season 1919-1920, much as an experiment, a shipload of wheat was sent from Vancouver to England by way of Panama and its arrival was waited with considerable interest and much misapprehension, the credence being general that it would so suffer from the heat as to be worthless. When the grain reached England experts said wheat had never been received in better condition. So a regular traffic was begun with limitless possibilities. Other shipments followed immediately and by the end of the season 16,000 tons had gone to Europe from Vancouver.

As soon as threshing in the prairies was completed in 1921, the grain be-

gan to find its way to the Pacific coast, the volume being somewhat abnormal as a result of the American emergency tariff. Before the end of that year more than 2,000,000 bushels of wheat had been shipped from Vancouver for England. Before the middle of February 5,000,000 bushels had been sent from the port, a third of which was for the Orient and the balance for Europe. Only a limited volume of grain had ever been expected to be shipped from Vancouver, so the storage capacity was taxed to the fullest extent and but for this the port likely would have received a greater share of Canada's grain export trade.

Of recent years Canada has developed a small trade in grain with the Orient, though the greater part of the grain purchases of Japan have been from the United States and the figures of Canadian transactions have never been sufficiently important to be itemized in the statistics of Canadian trade. For the main part Japan has been content with the softer grains of the United States but the popularity of the hardier Canadian variety has increased to such an extent that the demand for the western Canadian product is growing rapidly. Before the beginning of February more than 1,500,000 bushels had left Vancouver for Japan and total wheat shipments

to Japan from the port last season are reported to be something like 20,000 tons. An innovation of Vancouver's grain trade with Japan has been the shipping of wheat in sacks.

The increase in grain traffic from Vancouver has affected other lines of the port's business. New York, Chicago and Winnipeg grain agents who investigated the new route to Europe have expressed the opinion that the new channel will be permanent and some have even expressed the view that in a few years two-thirds of the wheat grown in Alberta and western Saskatchewan will be shipped through Vancouver. As a result the port now has a grain exchange holding daily sessions, and setting the cost prices for western grains.

#### Need More Capacity

The storage capacity of Vancouver port in its two terminal elevators has been only 1,266,000 bushels, totally inadequate to the new traffic. The first step in remedying this is the erection of a new elevator, to be commenced in the spring, which will have an initial capacity of 150,000 bushels and which can be increased up to 1,000,000 bushels. This is to be on Burrard inlet and is to include a sacking and drying plant to meet the conditions of the Pacific coast grain traffic. At the same time an elevator will be erected by Canadian capitalists at Kobe, Japan, for the reception of Canadian grain there.

In the past the development of Vancouver as a port has been to an extent handicapped by a lack of knowledge as to its advantages and possibilities and to a general misconception as to the extent of its shipping facilities and conveniences. To overcome this a party of port engineers was sent on a trip to visit all American Pacific ports to discover and recommend anything in the line of cargo handling apparatus in which Vancouver was deficient. Other ports, Seattle and San Francisco, it was determined, had more wharves, but their facilities, from a cargo handling standpoint were found to be no better than those of Vancouver and did not effect any speedier despatch to vessels. It was reported Vancouver, as a port, can compete on equal terms with any on the Pacific coast.

Included in the improvements to the port in progress at the present time are a large drydock and two piers, each of which is to cost \$6,000,000. The Canadian Pacific railroad, activities of which constitute really the biggest factor in Vancouver development, has announced its intention to undertake the building of a large ocean

pier there, to be commenced this spring and take 18 months to complete. It is to be 800 feet long, with provision for extension later, 328 feet wide, and to carry four railway tracks to enable freight to be handled expeditiously between ship and cars. It will be equipped with the most modern facilities for handling passengers and freight.

At the present time there are 32 companies operating 45 services out of the port of Vancouver, these being to the Orient, Europe, India, South Africa, Australia, New Zealand, California, Mediterranean ports, Central and South America, Boston and other United States Atlantic ports, and a round-the-world service. In the course of a year approximately 750,000 passengers use the port and about 1200 coastwise steamers of approximately 5,000,000 tons enter and clear.

With the opening of last spring a monthly service opened from Vancouver to Europe by the Royal Mail Steam Packet Co. This is run by way of the Panama canal and ships fitted with 3000 tons of refrigerated space are to be used. Another addition is to be a passenger service over the same route to Liverpool and other European ports. Two vessels, the EMPRESS OF CANADA and the EMPRESS OF AUSTRALIA have been added to the Orient route by the Canadian Pacific Steamships Ltd., each of which is provided with more than 20,000 cubic feet of space for the carriage of perishable goods.

#### Trade Is Growing

The general export trade of Vancouver has developed greatly since the war and more products are continually being added to its list. The extraordinary war demand for certain provincial products pointed the way to peace time opportunity and some of the traffic created purely of war conditions has been maintained. It has also stimulated exporters to the desirability and necessity of going after business and there has been unprecedented penetration of foreign markets by British Columbia agents. The year 1921 exhibited a great increase in trade out of Vancouver solely brought about by this vigorous action, the most pronounced increases being in lumber, fruit and salmon. Exports in 1921 to the United States alone from Vancouver amounted to \$31,000,000. The increase in lumber exports is indicative of the general progress achieved. While in 1917 total lumber exports were only 44,000,000 feet and in 1920 146,000,000 feet, in 1921 they totaled 164,000,000 feet, of which 93,000,000 feet went to China

and Japan; 27,000,000 to Australia and New Zealand; 13,500,000 to the United States; 9,000,000 to the United Kingdom; and 21,500,000 to other countries.

Industrial development in Vancouver has been marked. In 1917 there was \$73,728,416 invested in Vancouver's industrial manufacturing establishments and production in that year amounted to \$57,172,309. The city now has 675 establishments employing 18,735 hands and accounting for a production valued at \$87,785,000. This increased activity reflects also the development in the province of which Vancouver is its commercial capital, and pivotal point. This is illustrated in the increase of customs receipts from \$8,547,689 in 1919 to \$10,442,332 in 1920 and to \$12,662,772 in 1921.

Exports from the port consist mainly of lumber, fish, flour, asbestos pulp, lead and spelter, which comprise largely the natural products of agriculture, the mines and fisheries. These in the Canadian West are barely tapped resources, and due for more extensive exploitation, the products of which must largely find their way to the countries of the world by way of the Pacific coast.

#### Obituary

Fields S. Pendleton, president of Pendleton Bros., the largest owners, builders and operators of sailing vessels in America, died recently after a short illness at his home at Ridge boulevard, Brooklyn. He was 51 years of age. Pendleton Bros. owned the town of Isleboro, Me., where they maintained shipyards. Mr. Pendleton personally owned shipyards at Mystic, Conn., and a coal yard at Jamaica in the West Indies. The Pendleton family came originally from Maine and for generations had been builders and operators of sailing vessels. During the war, Mr. Pendleton made a business of ship salvaging.

E. C. McConalogue, among the best known of the younger shipping men on the north Pacific died recently at San Francisco. For some time he had been Portland, Oreg., manager for the Yamashita Kisen Kaisha. He had previously been associated with the American-Hawaiian, W. R. Grace & Co. and General Steamship Corp.

Capt. J. S. Simpson of the steamship VIRENTIA died at sea Jan. 24 on board his ship bound for Boston. Captain Simpson was born in Leeds, Yorkshire, England, 53 years ago and entered the service of the Cunard line in 1889 and had been 38 years at sea.

# Adopt New Certificate of Damage

**Underwriters Prepare New Form Which Will Facilitate Settlement of Claims—Shipping Board Adds to Its Risks**

**A** NEW form of certificate of damage for the use of correspondents in handling damage claims, has been prepared by the national board of marine underwriters. The improved certificate is believed by insurance men to be a vast improvement over other forms in use. Information required on the certificate includes details of the shipment on which damage has been sustained, names of shipper, consignee and vessel and the condition of the goods as disclosed by examination.

Full explanations as to how the form is to be filled out is printed on each blank. Replies to each question must be definite. The certificate must state:

The exact locality where the examination or survey was made. Explicit cause of the loss or damage—sea water, river water, rain, exposure, fire, breakage, leakage, sweat of vessel's hold, theft, pilferage, contact with other cargo or other cause. If due from perils of the sea the certificate must be accompanied by an abstract from the master's protest. Where all packages are not damaged to the same extent, depreciation must be given for each package or series of packages. Where goods are sold at public auction, account sales must accompany the other documents supporting the claim.

Claims are adjusted by ascertaining the percentage of depreciation and applying it to the insured value; therefore, the certificate should show that either the damage has been agreed upon at a certain percentage of the sound value or the sound and damaged market values should be given so that the percentage of loss may be established by comparison. Whenever possible the sound and damaged values should be based on the duty paid prices.

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## Ship Board Now Carries More of Its Risks

**T**HE United States Protective & Indemnity Agency, Inc., is the name of a new association formed to handle personal injury, sickness, cargo damage, immigration fines and other liabilities not included in the ordinary marine policy. The president of the association is Nathan A. Smyth, general counsel for the shipping board. It officially began to operate Feb. 20 upon which date the

resignation of the Emergency Fleet corporation from the American Steamship Owners Protective and Indemnity association became effective. The new organization will have a worldwide scope and the appointment of representatives at the most important foreign ports has already commenced. It is understood that there will be no separate insurance fund established but claims will be paid from receipts as they fall due.

Commenting on the experience of the United States shipping board, Commissioner Meyer Lissner said recently in a statement that the board had paid \$5,000,000 in premiums last year to the Steamship Owners association but reduced this expense by \$2,000,000 by withdrawing insurance on its idle fleet. Under the new arrangement, the Emergency Fleet corporation will carry its own insurance just as it has done in regard to other government insurance risks. Losses will be paid out of funds appropriated by congress for the maintenance of the corporation as a shipping concern. The United States Protective & Indemnity agency will serve merely as a loss adjusting agency. The board went into the American Steamship Owners Protective association because it felt that it should help to build up this form of mutual marine insurance organization in America. The association has now on its books more than two million tons of privately owned shipping.

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## Offer Basis of Settlement for Bankrupt Firm

**C**LAIMANTS under marine insurance policies issued by the Peninsular Fire Insurance Co., Grand Rapids, Mich., which failed about 16 months ago, have just received an offer of 40 per cent of the amount of its adjusted marine loss claims. The total amount of such claims aggregate \$325,000 and payment has been held up on the ground that the Peninsular had a substantial premium credit with the Shippers' Underwriting agency, its former marine manager. The Shippers' agency denies this and an audit of accounts of the two organizations is under way.

Marine business of the Peninsular Fire was reinsured to the extent of 40 per cent in two companies, the

United States Marine, Jersey City and the Strathcona Fire, Montreal. The offer just made of 40 per cent is on the net liability less reinsurance, the balance to be recovered from the re-insurers.

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## Expert Favors Adoption of Hague Rules

**A**N APPEAL for the adoption of the Hague rules has been made to underwriters and shippers by Henry H. Reed, marine underwriter for the Insurance Co. of North America who believes that their adoption would be a step in the right direction and that if necessary they could be slightly amended after they become law. Mr. Reed also warns against buying cheap insurance. The wise shipper, he says, recognizes the foolishness of buying insurance at less than cost and demands assured protection before transferring the business. Shippers sometimes can not afford to be at a disadvantage with competitors and sometimes feel themselves obliged to place their business at cheaper rates. Mr. Reed emphasizes the point that the saving is not worth while if the ultimate cost to them more than offsets the gain. They should use the same care in selecting their insurance company as they do their banks. They should also investigate not only the company's ability to pay claims but the willingness to meet losses liberally and promptly, he says.

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## Rome Meeting Will Take Up Policy Change

**M**ARINE underwriters generally are following with keen interest the second general meeting of the International chamber of commerce to be held at Rome, Italy, March 18 to 24. Among the matters to be taken up are several closely affecting the marine underwriter. It is proposed, among other things, that the settlement of general average should take place, not at the port of embarkation, at New York or London as at present, but at the port of destination as was the practice prior to the war. The proposal is generally opposed by marine underwriters who feel that since they are the ones chiefly affected by the change they should be given a chance to present their

views. Their opposition to the change has been presented to the secretary of the American section of the International chamber of commerce.

Underwriters are of the opinion that while the port of destination may be the logical place for general average to be settled few competent adjusters are usually to be found at such places and established laws and usages as respects general average are absent.

\* \* \*

## Many Inefficient Ships Lead to Losses

OF THE 15,000,000 tons of surplus shipping reported in Lloyds list, 5,000,000 is more than 25 years old and obsolete while 3,000,000 tons is made up of inefficient war built vessels, it is stated. Much of this dangerous tonnage is on the high seas and is insured in the United States and abroad. British marine insurance companies blame their losses on the instability of hull underwriting.

\* \* \*

## Obtains Agency for Foreign Company

FORMAL announcement was made last month of the appointment of Talbot, Bird & Co. as marine managers for the Eagle, Star & British Dominions Insurance Co., Ltd., of London. By the acquisition of the foreign company, the facilities of Talbot, Bird & Co. have been greatly increased. The office has resigned the representation of the Franklin Fire & Marine which is a running mate for the powerful Home Insurance Co. of New York. Prior to taking in the British company, Talbot, Bird & Co. had a limit of \$750,000 on any risk; with its new connection this office will now be in a stronger position.

The Eagle, Star & British Dominions was admitted to the United States in 1906 and writes insurance in 38 states. The statement of the company as of Dec. 31, 1921, shows total admitted assets of \$5,024,148 and liabilities of \$3,980,476.

\* \* \*

## Urges Merchants to Change Contracts

THE merchants committee of the London chamber of commerce is said to be in favor of all merchants making contracts stipulating that the documents shall include a policy of insurance being advised to alter the wording so that they should provide for "a policy or certificate of insurance." This is suggested to avoid difficulty in British courts over the uncertain status there of American certificates of insurance.

## How Insurance Costs May Be Lowered

HOW can shippers and assureds co-operate with marine underwriters with a view to reducing the insurance rates," was the question propounded to one of the foremost marine insurance underwriters of the United States by the representative of MARINE REVIEW. The insurance man, who is the marine manager for an important group of companies, replied as follows:

"Exporters of merchandise should use due diligence and precautions in packing their merchandise for export, to use the best possible modern methods of packing and approved types of cases, so as to minimize losses, if any, by seawater, breakage, theft and pilferage. They should also use due diligence and caution in selecting their customers, and only ship to firms of known reputation, whose financial standing is unquestionable, so that if goods arrive damaged or short of their contents, only honest and legitimate claims will be presented to the underwriters. They can also direct that their shipments be forwarded to the places of destination where there are more than one line of steamers running to said places of destination, by electing to ship by the best class of steamers, even if the freight rate is higher than the others.

"Importers of merchandise should only purchase their merchandise from first-class houses whose reputation for fair dealing and honesty is unquestionable, so they are assured of the fact that before their merchandise is shipped, they are shipped in sound condition, are first-class merchandise, and are the grade paid for, so if these goods arrive at their destination damaged by the perils insured against, the underwriters will only be called upon to pay for a legitimate damage and not for a commercial loss. Furthermore, importers of merchandise can co-operate with underwriters, when goods arrive damaged at their destination, instead of having them sold at auction and sacrificed, (which is usually the result when goods are sold at auction), by taking them into their place of business, reconditioning the same, and selling them by private sales, which invariably produces better results for all parties concerned.

"Owners of marine property, who insure their vessels, should take steps to see that the captains, engineers and crews they employ, are the most competent obtainable, in order to avoid any unnecessary losses through incompetency or inexperience, and when repairs are made which are necessary

in consequence of perils insured against, due care and diligence should be exercised to see that the work is properly done at the lowest possible price, eliminating all unnecessary commissions and graft to outside parties who are not interested directly in the venture.

"It should be borne in mind by merchants and owners of vessel property, that marine insurance business or any marine business in fact, is no different than any other mercantile enterprise. Both parties are engaged in their various pursuits for profit, and it requires capital to conduct both classes of business, which are entitled to a return on their investments. Although a merchant and owner of vessel property may obtain his marine insurance from an insurance company below cost for the time being, eventually, the day of reckoning must come when the company will discover that the business is written below cost, and will attempt to raise the rates to a basis where the same shows a legitimate profit to them over the expense of handling the business, and if they do not take such steps, the company which is negligent in its conduct of its internal affairs, will either find itself financially impaired or will discontinue this class of business.

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## Watch Bootlegging Risks

BOOTLEGGING hazards are a new risk that underwriters are having to be on the lookout for these days. Applications are suspiciously numerous on yachts and other vessels operating to and from the West Indies and are subjected to special scrutiny. While underwriters are protected adequately against claims arising from the transportation of illicit liquor, nevertheless, a number of offices believe that it does not pay to be careless and they are extremely wary of applications that carry a suspicion of illegal use.

## Mexico To Establish Three Free Ports

Advices received by the San Francisco chamber of commerce from the Mexican government announce that three free ports are to be established there, at Puerto Mexico (Coatzacoalcos) on the east coast; and at Salina Cruz and Guaymas on the west coast. The Mexican government is preparing a pamphlet, printed in both English and Spanish, giving the regulations for the use of these ports. A large area is to be fenced at each port for the use of the free port. As all these ports have been operating as customs districts for many years, they are fully equipped.

# Editorial

## Discharge Books Prove Value

A REAL advance in the efficiency of the seagoing personnel is anticipated from the issuance of the new continuous discharge books for American seamen. Despite some clamor from political sources, no opposition to the issuance of the books has developed in the ranks of the working sailors. About 10,000 of the books have already been issued and another edition of 10,000 is in preparation.

Great Britain and other of the chief maritime nations of Europe have long made it a practice to issue these books in their merchant marine. On the Great Lakes, the Lake Carriers' association has employed these books for years with highly satisfactory results, both to the men and to the owners. The books also are used on the ships of the Pacific American Steamship association. These books, properly bound, carry a photograph and description of each seaman with a blank for the date of his shipment and discharge and the proper record of his conduct and efficiency. They are issued to the men when they sign at the beginning of a voyage and are retained by the men when they sign off as a record of their service.

In effect these books are recommendations for preferential treatment. The competent seamen consider these books a distinct advantage and they are regarded by the shipowners as a step toward stabilizing and improving the personnel of the American merchant marine.

As usual when any progressive step for the genuine advantage of an industry is taken, selfish opposition has been offered by those who make their living off of the men. The same class of selfish opposition has been offered ineffectively for years on the Great Lakes where the discharge book system has been longest in force. But the active, working sailors have learned to gage the value of the books to them, so that they have measured the critical opposition at its true worth. Given a sufficiently long test and the new method will win its way to the men's favor on salt water.

Some of the politicians who cater to the noisy minority of labor officials are attempting to destroy the good of the book system. Senator LaFollette is attempting to place the control of the books in the hands of government officials, where the owners are willing it should be, but he would prohibit any entries except innocuous listings such as the sailor's name, etc. Any reference to the character of his work would be prohibited.

Already the books have won favor among the working sailors. One large steamship company finds that its steady men show an inclination to

favor the books, while the few floaters are not enthusiastic. Another large shipowner has found that its men prefer the books and offer no objections to their issuance.

Efficiency in the conduct of American shipping is essential for its existence and the discharge book makes for efficiency.

## Open Rates in Intercoastal Trade

INTERCOASTAL trade has been the largest single factor making for stability in the unsettled shipping market through which American owners have been forced to pilot during the past depression. The most optimistic supporter of the Panama canal never ventured a prediction that the trade between the two American coasts would grow so rapidly.

At a time when ships were greatly in excess of freight offerings, the intercoastal trade reversed the conditions prevailing in most other world routes, by calling for more ship tonnage. More and more companies entered the route with additional ship offerings but so far the demand has kept pace with the supply. In the last six months alone, the increase in vessel tonnage in this route amounts to 600,000 deadweight tons.

Just before this big increase in available ships, rates were cut, through an open break in the conference, from 50 to 75 per cent. Some profits still came to the better established operators, owing to the steady volume of freight offered. But the amount of freight moving westward is now well below the available ship tonnage, so that earnings are not assured. This condition has led to suggestions by a number of the lines, to re-establish the conference with a view to increasing rates. But the stronger companies are content to keep the market open, satisfied of their own ability to carry on through a period of lowered income.

Increasing demand for Californian oil has been one factor in making the intercoastal market attractive. This demand matches the declining output from the Mexican fields. In the three months last fall, Californian oil shipments were 162,867 tons or approximately 1,100,000 barrels.

The demand for tonnage to move perishables, particularly fruits, from the Pacific coast to the Atlantic coast and Europe, has never been satisfied. California, Oregon and Washington fruit producers lost heavily through lack of sufficient facilities to move their crops. The shipping board was unable to meet this demand with its idle ships, owing to the lack of sufficient vessels with refrigerating capacity.

# Marine News in a Personal Way

Intimate Gossip About What Leaders in the  
Maritime World Are Doing

CAPT. THOMAS FLEMING, with the Pacific Mail Steamship Co., San Francisco, as master of various vessels for several years, has resigned to go to Shanghai, where he has been appointed a member of the pilots' association of the port. The position is one of the best-paying pilot berths in the world.

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T. G. BAIRD, formerly sales manager for the shipping board on the west coast, is now western representative of the Standard Steam Winch & Hoist Co., New York, with headquarters at 16 California street, San Francisco.

\* \* \*

J. L. DODGE, who was formerly connected with the sales division of the shipping board at Hog Island, is now the Philadelphia representative of the Standard Steam Winch & Hoist Co., New York.

\* \* \*

E. C. GEEHR, purchasing agent for William Cramp & Sons Ship & Engine Building Co., Philadelphia, was operated on for appendicitis, Feb. 12.

\* \* \*

H. B. TAYLOR, said to be one of the foremost turbine and water-tube boiler experts in the United States, has been appointed marine superintendent for the Pacific Mail Steamship Co., San Francisco.

\* \* \*

LIEUT. COMMANDER LEIGH M. STEWART, in charge of the United States branch office of the hydrographic service in the marine department of the San Francisco chamber of commerce, has been promoted to be a commander in the United States navy. He has been in the service for 22 years and was commended by Rear-Admiral Sims for service in the North sea during the world war.

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CAPT. GEORGE F. WAITE, district director of the shipping board at Boston has been unanimously elected to membership in the Maritime association, Boston chamber of commerce.

\* \* \*

T. C. FERRAND has been appointed as representative of the port of Portland, Oreg., in South America while GEORGE T. WEBSTER will perform similar service in Australia, New Zealand and Straits Settlements with headquarters at Singa-

pore. Trade representatives in Asia have brought good results and the additional appointments have been made with the view of extending Portland's commerce in other foreign markets.

\* \* \*

A. D. MEARNS, after 25 years of service, has resigned his position as general manager of the Cunard Steam Ship Co., with headquarters in Liverpool, England. He

agreement of the British Corp. for the survey and registry of shipping. S. J. Lister, who will be joint manager with A. C. F. Henderson, joined the Cunard company's staff in the saloon passenger department. Mr. Lister was associated with A. D. Mearns when the latter succeeded Mr. Moorhouse to the secretaryship. Soon after 1914, he was appointed chief of the third class passenger department and later was appointed one of the principal assistants to Mr. Mearns, under whom he had entire control of the passenger service of the Cunard line.

\* \* \*

E. J. MANION, assistant general manager for Dodwell & Co. and for 25 years connected with that company at Tacoma and Seattle, is making his first visit to the Orient. Mr. Manion will undertake a 6-month survey of business and shipping conditions in Japan, China and the Philippines.

\* \* \*

CAPT. K. TSUKUDA has arrived at Seattle to assume the duties of port captain for the Nippon Yusen Kaisha. He succeeds CAPT. U. OSAWA, who has been ordered back to Japan.

\* \* \*

H. F. ALEXANDER, president of the Pacific Steamship Co. and CAPT. J. S. GIBSON, president of the International Stevedoring Co., represented Pacific northwest shipping at the February meeting in Washington, of the National Merchant Marine association.

\* \* \*

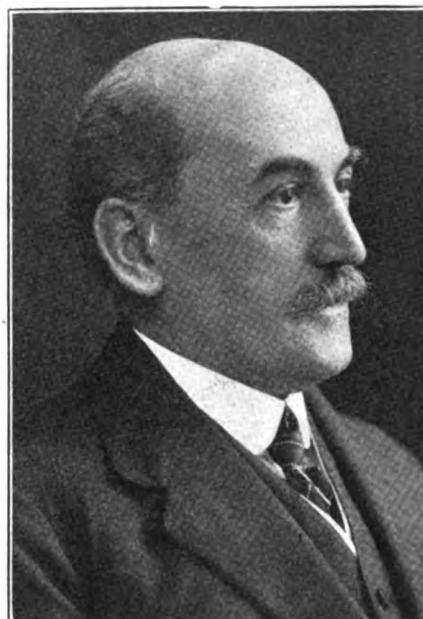
NEIL S. McNULTY, formerly with the Western Terminal Co., San Francisco, has been appointed Pacific coast general agent for the Garland Steamship Co. which has recently entered the intercoastal trade. Mr. McNulty's headquarters will remain in San Francisco.

\* \* \*

FRANK J. STAPLETON, for 17 years associated with the Pacific Steamship Co. has resigned to accept a position with the McCormick Lines. He has been stationed at Tacoma for several years but will be transferred to Portland.

\* \* \*

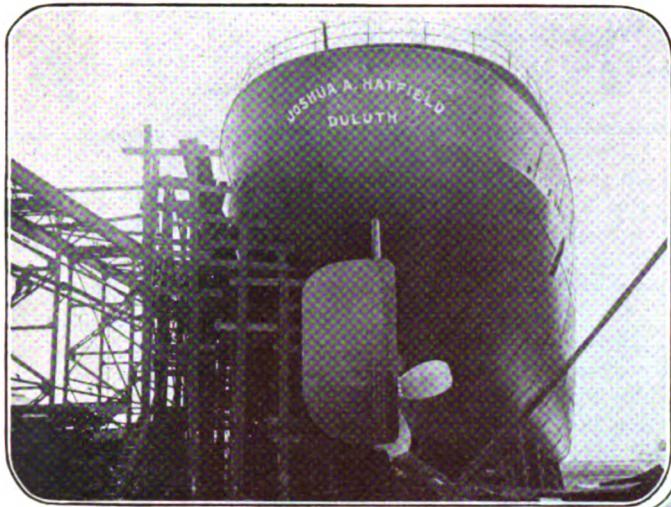
W. T. ISTED, widely known Seattle marine adjuster, was elected second vice president at the recent meeting of the National Board of Steam Navigation in New York.



A. D. MEARNS

will retain his seat on the board of directors to which he was elected in 1918. For some time he has desired to transfer the more exacting portion of his duties to younger shoulders. Mr. Mearns joined the Cunard organization in 1898 and was appointed sub manager and secretary in 1906 and general manager in 1907. He will be succeeded jointly by A. C. F. HENDERSON and S. J. LISTER. Mr. Henderson has represented the Anchor line in New York, Bombay and Calcutta, and prior to the absorption of the Anchor interests by the Cunard company he was sole managing director of the Anchor Line. When the amalgamation took place, he joined the board of directors of the Cunard Steam Ship Co. In addition to being managing director of the Anchor line, which office he still holds, Mr. Henderson is also a director of Thos. & John Brocklebank, Ltd., the Anchor-Donaldson Line, Ltd., and is a member of the committee of man-

# Photographs from Far and Near



This 800-pound tarpon was caught recently off St. Petersburg, Fla., by John W. Maxwell, of Chicago. Eight "huskies" helped Mr. Maxwell, who is 63 years old, to land his prize. The annual pilgrimage of fishermen to Florida waters is now on, and some good catches are "reported"—substantiated in some cases by photographs

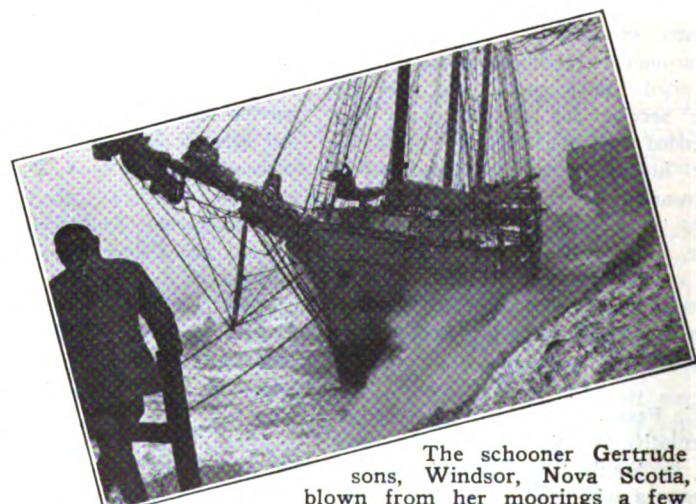


With the launching of the Joshua A. Hatfield at the Lorain, O., yard of the American Shipbuilding Co., Jan. 25, another steamer of modern design and construction was added to the fleet of the Pittsburgh Steamship Co. Three views of the Hatfield are here presented. The steamer will be completed in every detail in time for the opening of navigation on the Great Lakes. The steamer Richard V. Lindabury, a duplicate of the Hatfield, will be ready for launching on Feb. 24

The Hatfield is 600 feet overall, 580 feet keel, 60 feet beam and 32 feet deep. She has 18 cargo hatches spaced 24-foot centers, the size, clear of opening, being 12 x 28 feet

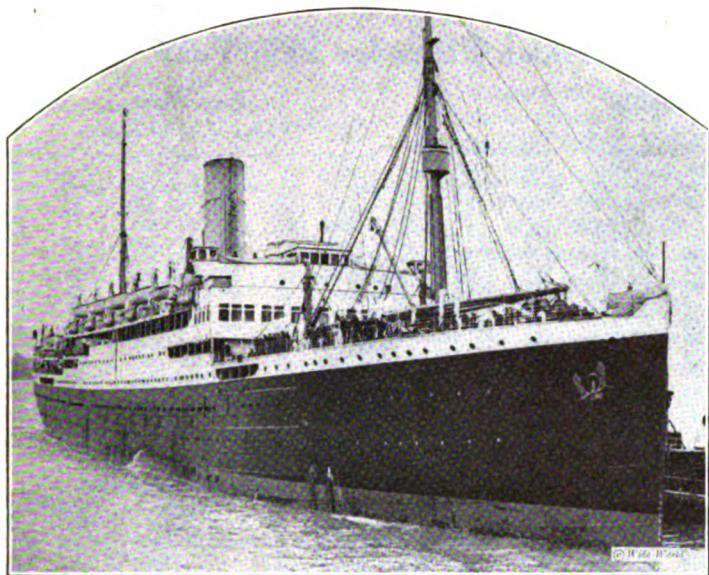


© Keystone View Co.



The schooner Gertrude Parsons, Windsor, Nova Scotia, was blown from her moorings a few days ago and driven a half mile inshore, alongside the main street of the town of Digby, N. S. Her jib-boom is "within 30 feet of the Salvation army barracks"

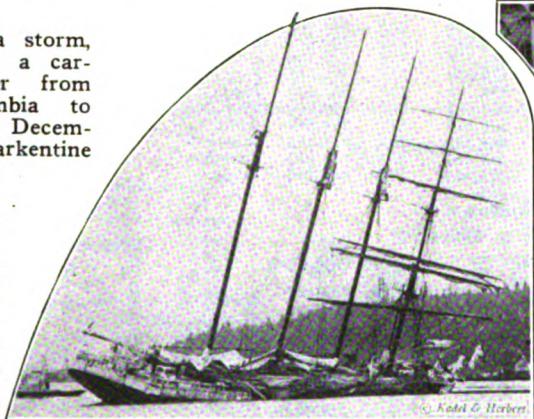
# Latest Marine News in Pictures



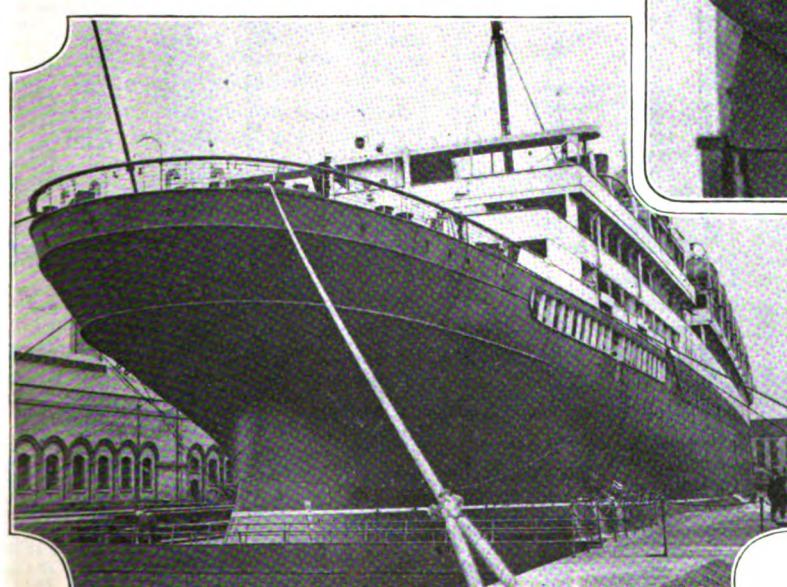
The steamer Orca on her maiden trip recently, strengthening the Royal Mail Steam Packet's new service from Southampton to New York via Cherbourg—a new service in competition with other shipping companies. This view shows the Orca leaving Southampton, and below is a photograph of her boat deck



Caught in a storm, while carrying a cargo of lumber from British Columbia to Washington in December, the barkentine James Tuf t was blown into shallow water off the Washington coast, where she lay helpless in mountainous seas for two days, until towed into Puget Sound



The Aquitania is the largest ship to be dry-docked at Southampton, the space between her hull and the sides of the dock being only a few inches. Eight tugs were necessary to handle her in docking and after refloating



Capt. W. E. Reynolds, commandant of the coast guard, recently received his commission as rear admiral from Assistant Secretary of the Treasury Clifford, this rank having just been granted by congress for the first time. Admiral Reynolds has served in the coast guard since 1878

# Marine Business Statistics Condensed

## Record of Traffic at Principal American Ports for Past Year

### New York

Month	(Exclusive of Domestic)			
	No. ships	Net tonnage	No. ships	Net tonnage
January, 1923..	423	1,678,843	439	1,690,010
December, 1922.	397	1,569,778	473	1,819,341
November .....	426	1,626,068	463	1,805,798
October .....	452	1,846,327	467	1,848,637
September .....	519	1,985,981	542	2,104,884
August .....	515	1,772,837	508	1,865,798
July .....	509	1,928,541	520	1,977,690
June .....	486	1,718,879	551	2,070,048
May .....	524	1,769,601	496	1,759,780
April .....	454	1,651,584	473	1,758,160
March .....	462	1,708,727	484	1,829,016
February .....	414	1,548,412	391	1,533,163
January .....	370	1,230,000	396	1,436,614

### Seattle

Month	(Exclusive of Domestic)			
	No. ships	Net tonnage	No. ships	Net tonnage
January, 1923..	27	125,551	36	155,129
December, 1922.	(Inclusive of Domestic)			
November .....	201	560,159	198	564,367
October .....	138	374,871	139	374,871
September .....	164	417,901	148	406,498
August .....	159	375,340	159	382,079
July .....	162	396,363	153	387,908
June .....	140	373,211	137	371,526
May .....	139	384,290	137	354,702
April .....	138	357,583	150	361,835
March .....	129	328,172	154	365,057
February .....	198	508,760	202	515,606
January .....	159	478,849	147	417,425
	174	479,514	177	509,508

### Key West

Month	(Exclusive of Domestic)			
	No. ships	Net tonnage	No. ships	Net tonnage
January, 1923..	89	81,622	86	79,210
December, 1922.	74	77,623	78	85,839
November .....	69	71,740	70	71,705
October .....	61	67,755	64	77,225
September .....	57	64,645	59	62,676
August .....	65	69,962	61	65,883
July .....	67	80,673	67	85,336
June .....	60	73,308	58	73,842
May .....	89	107,629	82	101,318
April .....	77	81,917	81	86,471
March .....	97	78,984	92	76,531
February .....	84	67,080	78	68,137
January .....	77	69,850	77	72,321

### Philadelphia

(Including Chester, Wilmington and the whole Philadelphia port district)

Month	(Exclusive of Domestic)			
	No. ships	Net tonnage	No. ships	Net tonnage
January, 1923..	98	287,240	64	182,402
December, 1922.	78	209,962	63	167,736
November .....	75	221,130	78	241,326
October .....	80	205,137	73	202,326
September .....	103	261,963	74	224,079
August .....	104	273,123	76	222,478
July .....	116	307,058	84	248,337
June .....	103	282,251	83	233,964
May .....	117	310,117	80	234,220
April .....	94	245,785	63	197,807
March .....	107	288,295	79	257,149
February .....	94	240,663	62	189,140
January .....	86	243,546	67	211,468

### New Orleans

Month	(Exclusive of Domestic)			
	No. ships	Net tonnage	No. ships	Net tonnage
January, 1923..	242	713,589	233	695,524
December, 1922.	211	543,884	222	573,111
November .....	220	598,306	219	599,150
October .....	239	630,306	235	625,605
September .....	212	555,017	223	571,299
August .....	249	625,819	250	629,150
July .....	227	570,709	236	601,740
June .....	253	596,752	234	587,483
May .....	236	632,495	230	610,916
April .....	221	565,559	225	594,842
March .....	235	643,251	258	716,568
February .....	197	582,189	201	576,973
January .....	225	621,483	217	603,995

### Portland, Me.

Month	(Exclusive of Domestic)			
	No. ships	Net tonnage	No. ships	Net tonnage
January, 1923..	49	144,429	42	126,949
December, 1922.	48	144,019	48	136,247
November .....	22	45,567	21	46,755
October .....	27	60,114	22	49,594
September .....	32	68,125	27	57,609
August .....	28	42,746	28	47,459
July .....	19	39,950	20	39,571
June .....	11	16,601	15	21,765
May .....	16	21,380	10	22,477
April .....	14	51,228	18	62,091
March .....	23	81,938	20	77,044
February .....	23	73,634	24	75,625
January .....	21	64,885	21	67,309

### Norfolk and Newport News

Month	(Exclusive of Domestic)			
	No. ships	Net tonnage	No. ships	Net tonnage
January, 1923..	14	41,127	44	121,152
December, 1922.	19	52,716	40	137,081
November .....	6	21,036	38	118,738
October .....	17	44,423	46	149,670
September .....	5	22,051	45	132,751
August .....	15	43,887	51	158,879
July .....	22	62,986	55	158,254
June .....	22	73,791	56	175,961
May .....	21	61,513	73	198,599
April .....	18	59,180	83	232,485
March .....	29	77,775	79	235,809
February .....	24	66,156	72	192,640
January .....	22	78,412	53	152,957

### Boston

Month	(Exclusive of Domestic)			
	No. ships	Net tonnage	No. ships	Net tonnage
January, 1923..	148	429,849	61	160,090
December, 1922.	138	383,366	61	181,975
November .....	130	357,264	59	123,255
October .....	149	408,855	91	217,899
September .....	193	511,027	101	248,328
August .....	192	449,871	116	203,774
July .....	159	324,795	94	229,492
June .....	137	169,015	94	161,888
May .....	133	251,304	104	192,231
April .....	71	138,683	103	270,499
March .....	85	241,289	56	135,671
February .....	76	218,853	58	153,350
January .....	70	185,175	42	108,423

### Savannah

Month	(Exclusive of Domestic)			
	No. Ships	Tonnage	No. Ships	Tonnage
January, 1923..	28	93,564	28	93,587
December, 1922.	22	66,619	22	57,279
November .....	14	41,665	15	40,606
October .....	19	52,065	19	46,054
September .....	26	68,878	26	73,540
August .....	22	63,662	22	59,974
July .....	23	66,833	23	61,655
June .....	11	24,870	20	53,367
May .....	11	20,536	16	40,181
April .....	8	20,485	15	42,591
March .....	6	12,845	19	47,946
February .....	9	17,568	15	40,622
January .....	6	11,561	9	23,601

### San Francisco

Month	(Exclusive of Domestic)			
	No. ships	Net tonnage	No. ships	Net tonnage
January, 1923..	51	156,249	65	216,083
December, 1922.	54	187,648	68	234,385
November .....	42	154,024	42	154,280
October .....	59	159,855	69	261,687
September .....	52	163,697	65	233,079
August .....	65	221,288	68	219,326
July .....	51	194,586	55	191,574
June .....	51	182,219	47	161,761
May .....	50	170,506	56	191,858
April .....	50	174,713	54	190,928
March .....	52	185,391	58	188,930
February .....	47	158,210	54	184,296
January .....	52	152,819	52	167,007

### Los Angeles

Month	(Exclusive of Domestic)			
No. ships	Net tonnage	No. ships	Net tonnage	


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# Marine Business Statistics Condensed

## Port Traffic Record

### Houston

Month	(Exclusive of Domestic)			
	Entrances	Clearances	No. ships	Net tonnage
January, 1923	49	36,744	52	146,532
December, 1922	58	70,948	53	195,322
November	65	72,192	63	215,043
October	55	57,106	53	168,254
September	43	46,600	43	97,005
August	35	40,503	32	63,281
July	29	30,909	32	73,299
June	38	48,938	36	74,798
May	44	45,108	42	134,046
April	42	61,751	47	98,825
March	48	45,312	40	105,309
February	28	27,173	30	86,028
January	32	53,779	31	92,096

### Port Arthur, Tex.

Month	(Exclusive of Domestic)			
	Entrances	Clearances	No. ships	Net tonnage
January, 1923	52	184,683	61	220,314
December, 1922	59	210,778	65	218,274
November	42	143,551	47	154,010
October	68	227,039	66	217,502
September	53	158,181	57	168,681
August	69	227,941	70	224,654
July	88	296,956	82	270,263
June	81	271,752	87	285,633
May	90	303,623	88	292,595
April	90	282,288	101	313,829
March	91	318,679	87	269,369
February	73	233,148	81	250,138
January	82	261,439	77	261,604

### Providence

Month	(Exclusive of Domestic)			
	Entrances	Clearances	No. ships	Net tonnage
January, 1923	13	45,175	12	52,651
December, 1922	6	23,609	8	29,871
November	11	47,565	10	31,470
October	9	31,293	9	31,232
September	30	84,037	13	40,223
August	18	61,741	11	38,649
July	10	19,279	7	22,228
June	10	31,095	7	17,423
May	14	49,985	13	37,000
April	9	24,854	7	31,049
March	12	45,966	8	34,272
February	13	53,367	11	46,372
January	11	46,093	12	50,449

## Pittsburgh River Traffic

Traffic on the rivers in the Pittsburgh district was practically equivalent in January and December. Last month's total was 2,523,998 tons against 2,523,707 tons in December and one-half million tons under the November and October records.

Coal shipments, which are the dominant trade in the district, were heavier in January being 2,242,936 tons against 1,998,557 tons in December. Sand and gravel shipments fell off sharply while iron and steel freight fell from 44,300 tons in December to 28,027 tons in January. The record both by rivers and by commodities in January follows:

Commodity	Monong.	Allegheny	Gahela	Ohio	Total
Coal	127,540	1,832,248	283,148	2,242,936	
Coke	33,664	.....	33,664		
Gasoline	600	300	540	1,440	
Gravel	40,700	35,150	19,350	95,200	
Packet cargo	.....	4,178	4,178		
Sand	41,925	48,023	25,053	115,001	
Steel products	26,997	1,030	28,027		
Unclassified	2,422	1,130	3,552		
Total	210,765	1,978,804	334,429	2,523,998	

## Facts Given on Ship Sales

In response to a communication from the senate, Chairman A. D. Lasker of the shipping board supplied information in regard to the sale of ships during the period from March 4, 1921, to Jan. 5, 1923. Mr. Lasker stated that during this period the shipping board had sold 396 ships, of which 230 were of the wooden type. He gave the names and terms of payment of the companies making the purchases. All

cash terms have been met without exception and all deferred payments up to date have been made in full by cash on the due dates. The report did not cover sales made prior to March 4, 1921, including the sales to so-called pioneer purchasers.

Mr. Lasker is reported to have said that no settlements other than as per provisions of the terms of sale have been made. The following list gives the names of the companies with terms of payments:

Vessels	Name of Company	Cash	Deferred	Total price
MAJOR WHEELER	Baltimore Steamship Co.	\$72,285	\$72,285	\$144,570
GOV. JOHN LIND	Baltimore Steamship Co.	71,340	71,340	142,680
LAKE FORNEY	Hjelmor Buvig	50,000	26,000	76,000
LAKE FLOURNEY	Lone Star Steamship Co.	50,000	26,000	76,000
W. J. CROSBY	North Shore Transit Co.	50,000	26,000	76,000
CONTOLENE	Anthony O'Boyle	50,000	27,500	77,500
6 Vessels	Pacific Freighters Corp.	81,250	243,750	325,000
COTTONPLANT	Pacific States Lumber Co.	50,000	26,000	76,000
LAKE SERACO	Pacific Spruce Corp.	25,000	51,000	76,000
226 Wooden Ships	George D. Perry	75,175	674,825	750,000
4 Wooden Vessels	George D. Perry	1,327.50	11,946.84	13,274.34
LAKE GALLEN	Philadelphia Norfolk S. S. Co.	50,000	26,000	76,000
LAKE TIPPAH	.....	25,000	51,000	76,000
POINT ARENA	Silee Mill Co.	50,000	40,000	90,000
SEAONET	C. H. Sprague & Sons	83,500	83,500	167,000
UTACARBON	Union Oil Co.	226,755	226,755	453,510

## Record of Traffic Through Panama Canal

1922	Atlantic to Pacific traffic			Pacific to Atlantic traffic			Total traffic through canal			
	Panama Canal		No. of ships	Net tonnage	Tons of cargo	Panama Canal		No. of ships	Net tonnage	
December-American	78	365,857	328,924	68	344,847	551,907	146	710,704	880,831	
Foreign	83	352,020	231,494	75	312,539	422,777	158	664,559	654,271	
Total	161	717,877	560,418	143	657,386	974,684	304	1,375,263	1,535,102	
November American	65	324,783	234,500	55	273,293	416,515	120	598,076	651,015	
Foreign	83	370,180	266,878	91	369,024	508,967	174	739,204	775,845	
Total	148	694,963	501,378	146	642,317	925,482	294	1,337,280	1,426,860	
October American	70	328,229	264,171	51	205,606	385,196	121	578,835	649,367	
Foreign	89	384,223	300,904	84	347,334	495,592	173	731,557	794,496	
Total	159	712,452	565,075	135	597,940	880,788	294	1,310,392	1,445,863	
September American	54	260,249	226,741	53	235,008	315,898	107	495,257	542,639	
Foreign	72	322,167	241,095	61	252,986	354,454	133	575,153	595,549	
Total	126	582,416	467,836	114	487,994	670,352	240	1,070,410	1,138,188	
August American	58	261,613	257,674	48	236,669	305,838	106	498,282	563,512	
Foreign	83	350,249	299,087	68	235,602	303,351	151	585,851	602,438	
Total	141	611,862	566,576	116	472,271	609,189	257	1,084,133	1,165,950	
July American	52	250,378	246,471	55	272,868	335,154	107	523,246	581,625	
Foreign	76	323,853	295,941	68	280,772	333,534	144	604,625	629,475	
Total	128	574,231	542,412	123	553,640	668,688	251	1,127,871	1,211,100	
June American	57	256,060	269,098	45	205,063	211,373	102	461,123	480,466	
Foreign	78	338,136	317,284	48	171,454	179,728	126	509,590	497,012	
Total	135	594,196	586,377	93	376,517	391,101	228	970,713	977,478	
May American	59	285,265	343,913	49	226,356	264,626	108	511,621	608,539	
Foreign	75	309,448	329,485	60	211,747	220,483	135	521,195	549,968	
Total	134	594,713	673,398	109	438,103	485,109	243	1,032,816	1,158,567	
April American	47	220,055	260,442	48	223,913	238,420	95	443,968	498,462	
Foreign	74	300,633	301,991	61	230,232	245,194	135	530,865	547,585	
Total	121	520,688	562,433	109	454,145	483,614	230	974,833	1,046,047	
March American	57	256,613	239,696	46	215,547	219,569	103	472,160	459,265	
Foreign	81	329,428	342,256	50	174,223	158,568	131	503,651	500,824	
Total	138	586,041	581,952	96	389,770	378,137	234	975,811	960,089	
February American	46	199,564	186,486	42	192,931	193,643	88	392,495	380,129	
Foreign	68	288,441	256,339	56	205,599	201,606	124	494,040	457,945	
Total	114	488,005	442,825	98	398,530	395,249	212	886,535	838,074	
January American	47	208,770	206,633	38	169,575	153,649	85	378,345	360,282	
Foreign	78	304,994	286,958	47	163,177	160,058	125	468,171	447,016	
Total	125	513,764	493,591	85	332,752	313,707	210	840,516	807,298	
1921 December	American	44	198,506	163,744	43	198,528	179,441	87	397,034	343,185
	Foreign	91	377,163	353,366	61	243,047	256,502	152	620,210	609,868
	Total	135	575,669	517,110	104	441,575	435,943	239	1,017,244	953,053

# 1922 Construction Record of U.S. Yards

## Complete Tabulation Showing Vessels Delivered and Launched

### AMERICAN BRIDGE CO., PITTSBURGH

Name or Yard No.	Name and Address of Owner	Type of Vessel	Gross Ton. Each	Speed Knots	Length, Breadth and Depth, Feet	I.H.P.	Date Launched
2 Hulls	Carnegie Steel Co., Pittsburgh	Towboat	300	....	150-0 x 33-0 x 6-0	....	Jan. & Feb.
2 Decked Barges	Kosmos Portland Cement Co., Louisville, Ky.	Barges	360	....	150-0 x 32-0 x 7-6	....	Feb.
15 Decked Barges	United States Engineer, Memphis, Tenn.	Barges	227	....	120-0 x 30-0 x 7-0	....	Mch. to Sept.
12 Barges	J. K. Davison & Bro., Pittsburgh	Sand	315	....	135-0 x 26-0 x 10-0	....	Mch. to May
2 Barges	H. H. Halliday Sand Co., Cairo, Ill.	Sand	275	....	130-0 x 30-0 x 7-6	....	Appl.
1 Hull	H. H. Halliday Sand Co., Cairo, Ill.	Dredge	180	....	110-0 x 30-0 x 5-6	....	June
2 Barges	*Gulf Refining Co., New York	Oil	606	....	158-0 x 36-0 x 11-2	....	Apr.-May
4 Barges	O. F. Barrett, Cincinnati	Log	520	....	180-0 x 36-0 x 8-0	....	June-July
1 Wharfboat	O. F. Barrett, Cincinnati	Wharfboat	208	....	160-0 x 26-0 x 5-0	....	July
2 Carfloats	*Long Island R. R. Co., New York	Carfloats	1150	....	292-0 x 42-0 x 11-6	....	Nov.-Dec.
4 Barges	National Contract Co., Evansville, Ind.	Sand	170	....	100-0 x 26-0 x 6-6	....	Aug.
5 Barges	Rodgers Sand Co., Pittsburgh	Sand	340	....	135-0 x 27-0 x 10-0	....	Dec.

\* Constructed in Federal Shipbuilding Co. yard.

### AMERICAN CAR & FOUNDRY CO., WILMINGTON, DEL.

Nenemoosha 558 and 559	Alfred I. duPont	Yacht	....	97-8 x 17-0 x 12-0	....	4-15-22
560	Penn Sand & Gravel Co.	Sand Scows	....	75-0 x 26-0 x 7-6	....	6-15-22
561 and 562	Penn Sand & Gravel Co.	Land Dredge	....	70-0 x 32-0 x 6-6	....	7-22-22
	International Elevator Co.	Grain Elevator	....	120-0 x 33-0 x 14-0	....	
		Hulls	....			
Oswego Ontario	Baltimore & Ohio Railroad	Ferryboat	....	156-0 x 56-6 x 12-11	....	6-29-22
Charles W. Galloway	Govt. of Philippine Islands	Harbor Tug	....	100-0	....	

### AMERICAN SHIPBUILDING CO., CLEVELAND

Fred G. Hartwell	Franklin Steamship Co., Cleveland	Lake Cargo	8500	12	617-0 x 61-0 x 33-0	2400	10-28-22
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### BATH IRON WORKS, BATH, ME.

Light Vessel No. 106	U. S. Department of Commerce	Light Vessel	775	9	132-0 x 30-0 x 16-0	400	10-21-22
Light Vessel No. 108	U. S. Department of Commerce	Light Vessel	775	9	132-0 x 30-0 x 16-0	400	12-16-22

### BETHLEHEM SHIPBUILDING CORP., BETHLEHEM, PA.

H. M. Storey	Tanker	10614	....	....	3200	....
W. S. Rheeem	Tanker	10614	....	....	3200	....
S-31	Submarine	....	....	....	....	....
S-32	Submarine	....	....	....	....	....
S-33	Submarine	....	....	....	....	....
S-34	Submarine	....	....	....	....	....
S-35	Submarine	....	....	....	....	....
San Mateo	Ferry	2500	....	....	2500	....
S-19	Submarine	....	....	....	....	....
S-18	Submarine	....	....	....	....	....
S-20	Submarine	....	....	....	....	....
S-21	Submarine	....	....	....	....	....
S-22	Submarine	....	....	....	....	....
S-23	Submarine	....	....	....	....	....
S-24	Submarine	....	....	....	....	....
S-25	Submarine	....	....	....	....	....
S-26	Submarine	....	....	....	....	....
AA-2	Submarine	....	....	....	....	....
S-28	Submarine	....	....	....	....	....
Fort McHenry	Tanker	....	....	....	2000	....
Macy Willis	Tanker	....	....	....	2650	....
129	Carfloat	500	....	....	....	....
130	Carfloat	920	....	....	....	....
131	Carfloat	1100	....	....	....	....
R. D. Leonard	Tanker	1818	....	....	800	....
Palmetto State	Passenger	14123	....	....	12000	....
Nutmeg State	Passenger	14123	....	....	12000	....
Bethore	Ore & Oil	14103	....	....	5000	....
Marore	Ore & Oil	14103	....	....	5000	....
Steelore	Ore & Oil	14103	....	....	5000	....

### WILLIAM CRAMP & SONS SHIP & ENGINE BUILDING CO., PHILADELPHIA

506	Hainesport Mining & Transportation Co., Philadelphia	Sand Barge	682	....	120-6 1/4 x 30-6 1/4 x 9-11	....	6- 9-22
507	Hainesport Mining & Transportation Co., Philadelphia	Sand Barge	682	....	120-6 1/4 x 30-6 1/4 x 9-11	....	6-16-22
508	Hainesport Mining & Transportation Co., Philadelphia	Sand Barge	682	....	120-6 1/4 x 30-6 1/4 x 9-11	....	6-21-22
Californian	Amer.-Hawaiian Steamship Co., New York	Freight M. S.	7899	119	445-0 x 59-9 x 36-4	4500	....
Missourian	Amer.-Hawaiian Steamship Co., New York	Freight M. S.	7899	119	445-0 x 59-9 x 36-4	4500	....
Richmond	U. S. Navy	Scout Cruiser	7100	33.7	555-6 x 55-4 x 27-0	90000	9-21-21
Concord	U. S. Navy	Scout Cruiser	7100	33.7	555-6 x 55-4 x 27-0	90000	12-15-21

### DEFOE BOAT & MOTOR WORKS, BAY CITY, MICH.

No. 62	H. E. Seafoss, Benton Harbor, Mich.	Fruit Carrier	100	10	65-0 x 14-0 x 8-0	100	5- 1-22
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### DRAVO CONTRACTING CO., PITTSBURG

Contract Number		Gross	Tons	Register
W-185	United States Shipping Board, 3 Steel Lighters	....	210	....
W-206	United States Engineers, Pittsburgh, 3 Steel Barges	....	645	....
W-224	United States Engineers, Pittsburgh, 6 Steel Dump Scows	....	762	....
W-218	Island Creek Coal Co., 10 Steel Coal Barges	....	4300	....
W-200	U. S. Engineers Office, New York City, 1 Drill Boat "Corlaer"	....	1100	....
W-216	Joyce-Watkins Co., Chicago, 1 Sternwheel Towboat "Wacouta"	....	150	....
W-217	U. S. Engineers, Nashville, Tenn., 1 Derrick Boat No. 9	....	100	....
W-230	Wisconsin Bridge & Iron Co., Milwaukee, 2 Steel Cargo Barges	....	250	....
W-232	Builder's Account, 2 Steel Cargo Barges (125 each)	....	250	....
W-241	United States Engineers, Pittsburgh, 3 Steel Cargo Barges (215 each)	....	645	....
W-243	Builder's Account, 2 Steel Cargo Barges (135 each)	....	270	....
W-244	Keystone Sand and Supply Co., Pittsburgh, 4 Steel Sand and Gravel Barges (320 each)	....	1280	....
W-248	United States Engineers, New York, 1 Oil Barge (145); 1 Water Barge (145)	....	290	....
W-274	Builder's Account, 2 Stern Wheel Towboats (25 each)	....	50	....
W-284	Dravo Contracting Co., 10" Suction Dredge (90)	....	90	....
W-226	Builder's Account, 4 Steel Cargo Barges (125 each)	....	500	....
W-272	Dravo Contracting Co., 3 Floating Caissons	....	....	....

### FLORIDA BOAT WORKS, WEST PALM BEACH, FLA.

Florida Boat Works	A. F. Senior, Lakeworth, Fla.	Towboat	4 1/4	7	26-0 x 8-3 x 3-4	10	June 16
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# 1922 Construction Record of U.S. Yards

## Complete Tabulation Showing Vessels Delivered and Launched

### GREAT LAKES ENGINEERING WORKS, RIVER ROUGE, MICH.

Name or Yard No.	Name and Address of Owner	Type of Vessel	Gross Ton.	Speed Knots	Length, Breadth and Depth, Feet	I.H.P.	Date Launched
James MacNaughton	Wilson Transit Co., Cleveland.....	Lake Cargo	8299	10	580-0 x 60-0 x 32-0	1900	9-23-22

### HUMPHREYS RAILWAYS, INC., WEEMS, VA.

Little Joe	Bellows & Squires Co., Inc., Ocean, Va.	Fishing Boat	250	12½	145-0 x 22-0 x 10-6	300	2-25-22
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### JOHNSON SHIPYARDS CORP., MARINERS' HARBOR, STATEN ISLAND, N. Y.

No. 11	Eastern Transportation Co.	Schooner Barge	3000	...	281-0 x 46-0 x 23-0	...	6- 1-22
No. 23	Johnson Iron Works, New Orleans	Dry Dock Pon.	...	...	138-0 x 90-0 x 12-0	...	2- 1-22
No. 33	A. O'Boyle, New York	Barge	750	...	100-0 x 40-0 x 10-0	...	9- 1-22

### KRAFT SHIPYARD & DRY DOCK CO., CHICAGO

Kraft Shipyard & Dry Dock Co., Chicago	1 Steel Scow	45	...	56-0 x 28-0 x 4-6	...	1- -22
	2 Steel Scows	60	...	70-0 x 30-0 x 5-0	...	1- -22

### KYLE & PURDY, INC., CITY ISLAND, N. Y.

Bird S. Coler	Department of Plant & Structures, City of New York	Steam Ferryboat	300	...	90-0 x 26-0 x 11-11½	200	11- 2-22
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### LAKE TORPEDO BOAT CO., BRIDGEPORT, CONN.

U. S. Government	Submarine	...	...	...	...	10-14-22
U. S. Government	Submarine	...	...	...	...	6- 5-22
U. S. Government	Submarine	...	...	...	...	5-20-22
U. S. Government	Submarine	...	...	...	...	6-24-22

### MARIETTA MFG. CO., POINT PLEASANT, W. VA.

119	Gordon C. Greene, Cincinnati	Sternwheel Str.	1000	12-14	200-0 x 38-0 x 6-0	...	6-14-22
121	Standard Oil Co. of Ohio	Gas Tank Barge	125	...	95-0 x 18-0 x 4-0	...	7-26-22
120	Great Eastern Refining Co.	Oil Barge	...	...	83-0 x 25-0 x 4-0	...	5- 8-22
122	Standard Oil Co. of Ohio	Sternwheel	...	...	65-0 x 16-6 x 4-0	...	9-21-22
124	T. J. Hall & Co., Cincinnati	Sternwheel	350	...	120-0 x 28-0 x 6-0	...	12-19-22

### C. A. MORSE & SON, THOMASTON, ME.

Malabar II	John G. Alden, 148 State St., Boston	Schooner	...	...	41-0 x 12-0	...	4-15-22
Ellida	Dr. Austin Fox Riggs, Stockbridge, Mass.	Schooner	...	...	62-0 x 15-0	18	5-28-22
Michabo	William Butler, Boston	Schooner	...	...	92-0 x 21-0	80	7-13-22
Malabar III	John S. Alden, Boston	Schooner	...	...	41-0 x 12-0	...	8-10-22
Dagny	Stanley Butler, Nantucket, Mass.	Sloop	...	...	70-0 x 16-0	95	10-24-22
Bernice	Stanley Butler, Nantucket, Mass.	Sloop	...	...	57-0 x 15-0	48	11-26-22

### NEWPORT NEWS SHIPBUILDING & DRYDOCK CO., NEWPORT NEWS, VA..

Dolphin	Mortimer L. Schiff	Diesel Yacht	495	1100	...	...	....
Ohio	E. W. Scripps	Diesel Yacht	513	700	...	...	....

### NEW YORK SHIPBUILDING CORP., CAMDEN, N. J.

Peninsula State	U. S. Shipping Board, Washington, D. C.	Pass. & Cargo	14187	17½	534-0 x 72-0 x 50-0	12000	7- 6-21
Kamoi	Imperial Japanese Navy	Fuel Ship	10222	15	496-0 x 67-0 x 38-0	8000	6- 8-22
268	Brooklyn Eastern District Terminal Co., Brooklyn, N. Y.	Carfloat	1166	...	340-0 x 38-0 x 11-0	...	5-24-22
269	Rockland Trans. Co., Rockland, Me.	Carfloat	1166	...	340-0 x 38-0 x 11-0	...	7-31-22
Rockland	Rockland Trans. Co., Rockland, Me.	Lime Barge	943	...	185-0 x 34-0 x 17-6	...	9- 7-22
Rockport	Rockland Trans. Co., Rockland, Me.	Lime Barge	943	...	185-0 x 34-0 x 17-6	...	10-28-22
Rockville	Rockland Trans. Co., Rockland, Me.	Lime Barge	943	...	185-0 x 34-0 x 17-6	...	11-13-22
Rock Harbor	Rockland Trans. Co., Rockland, Me.	Lime Barge	943	...	185-0 x 34-0 x 17-6	...	12- 6-22
Rock Haven	Brooklyn Eastern District Terminal Co., Brooklyn, N. Y.	Carfloat	1166	...	340-0 x 38-0 x 11-0	...	12-14-22
275							

### PUSEY & JONES CO., WILMINGTON, DELA.

State of Virginia	Seaboard Bay Line Co., Baltimore	Pass. & Frt. Str.	1783.89	18½	330-0 x 58-0 x 18-6	2700	9- 6-22
State of Maryland	Seaboard Bay Line Co., Baltimore	Pass. & Frt. Str.	1783.89	18½	330-0 x 58-0 x 18-6	2700	7-25-22
Hull No. 1023	Pennsylvania Railroad Co., Philadelphia	Floating Grain Elevator	...	...	100-0 x 30-0 x 13-0	...	11- 8-22

### STATEN ISLAND SHIPBUILDING CO., MARINERS' HARBOR, STATEN ISLAND, N. Y.

Delivery No. 6	Standard Oil Co. of New York	Motor Barge	200	8	120-0 x 25-0 x 11-9	300	5-18-22
Youngstown	Erie Railroad	Ferryboat	1538	...	206-0 x 44-1 x 17-4	1200	10-26-22

### SUN SHIPBUILDING CO., CHESTER, PA.

Delaware Sun	Sun Oil Co.	Tanker	8964	10½	480-0 x 65-9 x 37-0	2700	12-31-21
Millville	Pennsylvania Railroad Co.	Ferryboat	796	13	160-0 x 38-0 x 13-0	700	5- 8-22
Haddonfield	Pennsylvania Railroad Co.	Ferryboat	796	13	160-0 x 38-0 x 13-0	700	5-15-22
No. 51	Gulf Refining Co.	Barge	352	...	130-0 x 34-0 x 8-3	...	4-25-22
No. 52	Gulf Refining Co.	Barge	352	...	130-0 x 34-0 x 8-3	...	4-25-22
Haleakala	Inter-Island Steam Navigation Co.	Cur. & Pass.	4500	17½	345-0 x 46-0 x 32-0	5500	9-18-22
801	Pennsylvania Railroad Co.	Grain Barge	542	...	150-0 x 30-0 x 16-0	...	11- 8-22
802	Pennsylvania Railroad Co.	Grain Barge	542	...	150-0 x 30-0 x 16-0	...	11-15-22
803	Pennsylvania Railroad Co.	Grain Barge	542	...	150-0 x 30-0 x 16-0	...	11-22-22
7015	American Dredging Co.	Barge	219	...	80-0 x 34-0 x 8-9	...	12- 2-22
Toledo	Sun Co.	Barge	352	...	130-0 x 34-0 x 8-8	...	6-26-22

### TOLEDO SHIPBUILDING CO., TOLEDO, O.

La Salle	Detroit & Windsor Ferry Co.	Ferry	600	13	170-0 x 66-0 x 17-6	1200	....
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### E. JAMES TULL, POCOMOKE CITY, MD.

Edwin	Otto Lemburg, Wildwood, N. J.	Aux. wkg. sch.	...	...	58-0 x 16-6 x 6-3	...	....
Victor	John Burk, Anglesca, N. J.	Aux. Fshg	15	...	52-0 x 15-0 x 4-0	...	....

### CHARLES WARD ENGINEERING WORKS, CHARLESTON, W. VA.

No. 17	U. S. Transport Service, War Department, Washington	Troop Trans.	433	...	150-0 x 28-0 x 9-0	1050	3- 3-22
No. 18	U. S. Transport Service, War Department, Washington	Troop Trans.	433	...	150-0 x 28-0 x 9-0	1050	3-11-22
No. 19	Pan-American Petroleum & Transport Co., New Orleans	Towboat	371	...	159-0 x 32-0 x 5-6	...	6- 1-22
No. 20	Missouri-Illinois R. R. Co., Bonne Terre, Mo.	R. R. Car Ferry	1667	...	285-0 x 54-0 x 11-0	...	9-21-22

### CANADIAN VICKERS, LTD., P. O. BOX 550, MONTREAL, QUE.

Dredge No. 16	Canadian Government	Hopper Bucket Dredge	1964	9	284-0 x 48-0 x 20-2	2000	7- -22
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# 1922 Construction Record of U.S. Yards

## Complete Tabulation Showing Vessels Delivered and Launched

### COLLINGWOOD SHIPBUILDING CO., LTD., COLLINGWOOD, ONT.

Name or Yard No.	Name and Address of Owner	Type of Vessel	Gross Ton.	Speed Knots	Length, Breadth and Depth, Feet	I.H.P.	Date Launched
Charles Dick	National Sand & Material Co., Welland, Ont.	Self-loading and Self-loading Sand & Gravel	2015.25	9	250-0 x 43-0 x 20-0	1200	5-27-22

### ERNST SHIPBUILDING CO., LTD., MAHONE CITY, N. S.

Dominion Fisheries, Ltd., Halifax, N. S.	Wooden Str.	93	Sail.	87-5 x 20-0 x 9-2		7- -22
Ernst Shipbuilding Co., Ltd.	Wood Fsh. Sch.	125	Sail.	130-0 x 24-4 x 11-0		12- 6-22

### MIDLAND SHIPBUILDING CO., LTD., MIDLAND, ONT.

Glenelg	Great Lakes Transportation Co., Ltd., Mid- land, Ont.	Self-Unloader	2400	9	246-0 x 43-0 x 25-6	850	Delivered
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## Complete Tabulation Showing Vessels on the Ways or Under Contract on Jan. 1, 1923

### ADAMS SHIPBUILDING CO., EAST BOOTHBAY, ME.

The Willard-Daggett Co., Portland, Me.	Aux. Fahg. Sch.	.....	.....	69-0 x 17-0 x 8-6	45	4- 1-23
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### AMERICAN BRIDGE CO., PITTSBURGH

5 Barges	Rodgers Sand Co., Pittsburgh	Sand	340	.....	135-0 x 27-0 x 10-0	.....	Jan.
3 Barges	Patton-Tully Transp. Co., Memphis	Log	360	.....	160-0 x 34-0 x 7-0	.....	Jan.
2 Barges	Wilson Sand & Supply Co., Huntington, W. Va.	Sand	340	.....	135-0 x 27-0 x 10-0	.....	Feb.
40 Barges	Carnegie Steel Co., Pittsburgh	Coal	475	.....	175-0 x 26-0 x 11-0	.....	1923
20 Barges	American Steel Wire Co., Pittsburgh	Coal	475	.....	175-0 x 26-0 x 11-0	.....	1923
2 Fuel Flats	West Kentucky Coal Co., Paducah, Ky.	Fuel Flats	66	.....	90-0 x 18-0 x 4-6	.....	Feb.
6 Barges	J. K. Davison & Bro., Pittsburgh	Sand	315	.....	135-0 x 26-0 x 10-0	.....	June

### AMERICAN CAR & FOUNDRY CO., WILMINGTON, DEL.

564	Pennsylvania Sand & Gravel Co.	Land Dredge	.....	90-0 x 34-0 x 7-6	.....	.....
565-569	Charles Warner Co.	Sand Scows	.....	120-0 x 26-0 x 8-6	.....	.....

### AMERICAN SHIPBUILDING CO., CLEVELAND, O.

782	Pittsburgh Steamship Co., Cleveland	Bulk Cargo	8300	12	600-0 x 60-0 x 32-0	2200	Sp'g. '23
783	Pittsburgh Steamship Co., Cleveland	Bulk Cargo	8300	12	600-0 x 60-0 x 32-0	2200	Sp'g. '23
784	Panda Steamship Co., Cleveland	Bulk Cargo	8300	12	600-0 x 60-0 x 32-0	2200	Sp'g. '23
785	D. & C. Navigation Co., Detroit	Passenger	6500	22	535-0 x 58-0 x 23-7	12000	1923
786	D. & C. Navigation Co., Detroit	Passenger	6500	22	535-0 x 58-0 x 23-7	12000	1923
496	Interlake Steamship Co., Cleveland	Bulk Cargo	8300	12	600-0 x 60-0 x 32-0	2200	Sp'g. '23

### BATH IRON WORKS, BATH, ME.

Light Vessel 107	U. S. Department of Commerce	Light Vessel	775	9	132 OA x 30 x 16	400	2- -23
Light Vessel 109	U. S. Department of Commerce	Light Vessel	775	9	132 OA x 30 x 16	400	3- -23
Light Vessel 110	U. S. Department of Commerce	Light Vessel	775	9	132 OA x 30 x 16	400	4- -23
Light Vessel 111	U. S. Department of Commerce	Light Vessel	775	9	132 OA x 30 x 16	Hull only	10- -23

Hull No. 93	New Bedford, Martha's Vineyard & Nantucket Steamboat Co.	Sound Pass. & Abt. Frt. Steamer.	800	14	210 OA x 36 x 0 x 50 OG x 14	1400	5- -23
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### BETHLEHEM SHIPBUILDING CORP., BETHLEHEM, PA.

Wilton	Freighter	.....	.....	.....	1300	.....
Cornish	Freighter	.....	.....	.....	1300	.....
Lexington	Airplane Carrier	43200	.....	.....	180000	.....
Massachusetts	Battleship	43200	.....	.....	60000	.....
S-47	Submarine	.....	.....	.....	.....	.....
S-46	Submarine	.....	.....	.....	.....	.....
S-45	Submarine	.....	.....	.....	.....	.....
S-43	Submarine	.....	.....	.....	.....	.....
S-44	Submarine	.....	.....	.....	.....	.....
S-42	Submarine	.....	.....	.....	.....	.....
S-27	Submarine	.....	.....	.....	.....	.....
S-36	Submarine	.....	.....	.....	.....	.....
S-37	Submarine	.....	.....	.....	.....	.....
S-38	Submarine	.....	.....	.....	.....	.....
S-39	Submarine	.....	.....	.....	.....	.....
S-40	Submarine	.....	.....	.....	.....	.....
S-41	Submarine	.....	.....	.....	.....	.....
No. 5317	Oil Barge	.....	.....	.....	.....	.....
Lebore	Ore & Coal	12400	.....	.....	5000	.....
No. 3480	Car Float	.....	.....	.....	.....	.....
No. 3481	Car Float	.....	.....	.....	.....	.....
No. 4216	Car Float	.....	.....	.....	.....	.....
No. 4217	Passenger	.....	.....	.....	3500	.....
Goodwill	Yacht	.....	.....	.....	.....	.....
No. 3479	Car Float	.....	.....	.....	.....	.....
No. 3482	Scout Cruiser	7500	.....	.....	90000	.....
Raleigh	Scout Cruiser	7500	.....	.....	90000	.....
Detroit	Ferryboat	2500	.....	.....	2500	.....
Shasta	Ferryboat	2500	.....	.....	2500	.....
Yosemite	Ore & Coal	12400	.....	.....	5000	.....
Calore	Submarine	.....	.....	.....	.....	.....
S-29	.....	.....	.....	.....	.....	.....

### BURGER BOAT CO., MANITOWOC, WIS.

McMullen & Pitz Construction Co., Manitowoc, Wis.	Tug	.....	.....	77-0 x 18-0 x 10-0	300	3- 1-23
McMullen & Pitz Construction Co., Manitowoc, Wis.	2 Dump Scows	.....	.....	105-0 x 28-0 x 10-0	.....	3- 1-23
National Fireproofing Co., Pullman, Ill.	Tug	.....	.....	43-0 x 12-0 x 5-0	100	1- 8-23
Conrad LaFond, Two Rivers, Wis.	Fish Tug	.....	.....	40-0 x 10-0 x 5-0	.....	12- 15-22
Will DeYoung, Ludington, Mich.	Fish Tug	.....	.....	40-0 x 10-0 x 5-0	.....	12- 15-22

### COWLES SHIPYARD CO., BUFFALO

Cowles Shipyard	B. L. Cowles, Buffalo	Steel Derrick	300	....	100-0 x 34-0 x 6-0	....
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### WILLIAM CRAMP & SONS SHIP & ENGINE BLDG. CO., PHILADELPHIA

Trenton	Scout Cruiser	7100	33 7	555-6 x 55-4 x 27-0	90000	.....
Marblehead	Scout Cruiser	7100	33 7	555-6 x 55-4 x 27-0	90000	.....
Memphis	Scout Cruiser	7100	33 7	555-6 x 55-4 x 27-0	90000	.....

# 1922 Construction Record of U.S. Yards

## Complete Tabulation Showing Vessels on the Ways or Under Contract on Jan. 1, 1923

## DEFOE BOAT &amp; MOTOR WORKS, BAY CITY, MICH.

Name or Yard No.	Name and Address of Owner	Type of Vessel	Gross Ton.	Speed Knots	Length, Breadth and Depth, Feet	I.H.P.	Date to be Launched
No. 63	P. R. Eaglesfield, St. Joseph, Mich.	Fruit Carrier	150	10	65-0 x 18-0 x 9-0	70	5- 1-23
<b>DRAVO CONTRACTING CO., PITTSBURGH</b>							
W-243	Builder's Account, 2 Steel Cargo Barges (135 each)					270	
W-245	Gulf Coast Lines, Houston, Tex., 1 Steel Car Transfer					1900	
W-270	Equitable Towing & Transportation Co., 6 Steel Coal Barges (230 each)					1380	
W-272	Builder's Account, 2 Steel Coal Barges (230 each)					460	
W-278	Dravo Contracting Co., 7 Caissons (Floating)					...	
W-286	Dravo Contracting Co., 12 Floating Caissons					...	
W-276	Dravo Contracting Co., 2 Caissons					270	
W-283	Dravo Contracting Co., 2 Steel Barges (135 each)					2000	
<b>RIVER TERMINAL COMMISSION, CITY OF MEMPHIS, TENN., 2 STEEL CAR FLOATS (1000 EACH)</b>							
243	Walkerville Ferry Co., Walkerville, Ont., Can. Ferry		400	11	128-0 x 45-0 x 15-0	800	2-15-23
244	Cleveland-Cliffs Iron Co., Cleveland	Bulk Frt.	8300	10	580-0 x 60-0 x 32-0	1900	3-15-23
<b>GREAT LAKES ENGINEERING WORKS, RIVER ROUGE, MICH.</b>							
243	Walkerville Ferry Co., Walkerville, Ont., Can. Ferry		400	11	128-0 x 45-0 x 15-0	800	2-15-23
244	Cleveland-Cliffs Iron Co., Cleveland	Bulk Frt.	8300	10	580-0 x 60-0 x 32-0	1900	3-15-23
<b>KELLEY-SPEAR CO., BATH, ME.</b>							
No. 201	Westmoreland Coal Co., Philadelphia	Coal Barges	1100		195-0 x 38-0 x 16-0	...	3-15-23
No. 202	Westmoreland Coal Co., Philadelphia	Coal Barges	1100		195-0 x 38-0 x 16-0	...	4-15-23
<b>MARIETTA MFG. CO., POINT PLEASANT, W. VA.</b>							
123	Builder's Account	Sternwheel			65-0 x 16-6 x 4-0	...	
125-26 27-28	T. J. Hall & Co., Cincinnati	4 Sand Barges	350		110-0 x 26-0 x 4-0	...	
129-30-31	Western Rivers Co., Pt. Pleasant, W. Va.	3 Sand Barges	300		110-0 x 26-0 x 4-0	...	
132-33	Barrett Line, Cincinnati	2 Derrick Boats			90-0 x 34-0 x 4-6	...	
134	Standard Oil Co., of Ohio	Sternwheel			808 x 18-0 x 4-6	...	
135	Jones & Laughlin Steel Co., Pittsburgh	Sternwheel			64-0 x 22-0 x 4-0	...	
<b>MARINE IRON &amp; SHIPBUILDING CO., WEST DULUTH, MINN.</b>							
U. S. Engineers, Duluth, Minn.	Derrick Boat			Tow.	147-4 x 40-0 x 10-6	...	4-28-23
<b>C. A. MORSE &amp; SON, THOMASTON, ME.</b>							
F. W. Vander Veer, Greenwich, Conn.	Schooner, wooden				65 ft. long	...	
John G. Alden, Boston, Mass.	Schooner, wooden				45 ft. long	...	
<b>NEWPORT NEWS SHIPBUILDING &amp; DRYDOCK CO., NEWPORT NEWS, VA.</b>							
West Virginia	United States Navy	Battleship			...	...	
*Constellation	United States Navy	Battle Cruiser			...	...	
*Ranger	United States Navy	Battle Cruiser			...	...	
*Iowa	United States Navy	Battleship			...	...	
No. 266	Ocean Steamship Co., Savannah, Ga.	Frt. & Pass.	3500			2900	
No. 267	Ocean Steamship Co., Savannah, Ga.	Frt. & Pass.	3500			2900	
<b>NEW YORK SHIPBUILDING CORP., CAMDEN, N. J.</b>							
276-277	Brooklyn Eastern District Terminal Co., Brooklyn, N. Y.	Carfloat	1166		340-0 x 38-0 x 11-0	...	Spg. '23
278	Red "D" Line, New York	Pass. & Cargo	3100	12 <sup>1</sup> / <sub>2</sub>	305-0 x 48-0 x 21-10	2000	Fall '23
<b>NUNES BROTHERS, SACRAMENTO, CALIF.</b>							
Nunes Bros.	A. I. & M. I. Nunes, 1817 3rd, Sacramento, Cal.	Tugboat	30	10	57-0 x 16-0 x 7-0	165	Dec. 23
		Tugboat	28	9	60-0 x 15-0 x 7-0	110	Sept. 4
<b>PUSEY &amp; JONES CO., WILMINGTON, DEL.</b>							
No. 1024	Wilson Line, Wilmington, Del.	Pass. & Frt. Str.	1000	18	219-0 x 59-0 x 13-9	2600	
No. 1025	Wilson Line, Wilmington, Del.	Pass. & Frt. Str.	1000	18	219-0 x 59-0 x 13-9	2600	
No. 1026	Philadelphia & Reading Railroad, Philada.	Dbl. Screw Steel	920	14	200-0 x 55-6 x 16-0	1000	
No. 1027	Philadelphia & Reading Railroad, Philada.	Dbl. Screw Steel	920	14	200-0 x 55-6 x 16-0	1000	
<b>T. H. SOULE, SOUTH FREEPORT, ME.</b>							
Clay Products	Winslow & Co., Portland, Me.	Scow			60-0 x 22-0 x 6-0	36	March
<b>STATEN ISLAND SHIPBUILDING CO., MARINERS' HARBOR, STATEN ISLAND, N. Y.</b>							
No. 741	City of New York	Ferryboat			215-0 x 45-0 x 18-0	1900	
No. 742	City of New York	Ferryboat			...	...	
No. 743	City of New York	Ferryboat			...	...	
No. 747	Catskill Evening Line	Freighter	1076		180-0 x 30-0 x 11-4	...	
<b>SUN SHIPBUILDING CO., CHESTER, PA.</b>							
No. 57	Commercial Pacific Cable Co.	Cable Boat		10 <sup>1</sup> / <sub>2</sub>	169-6 x 30-0 x 22-6	...	
No. 58	U. S. Government	Dredges	2000	10 <sup>1</sup> / <sub>2</sub>	254-0 x 46-0 x 22-6	1600	
No. 59	U. S. Government	Dredges	2000		254-0 x 46-0 x 22-6	1600	
No. 60	U. S. Government	Dredges	2000		254-0 x 46-0 x 22-6	1600	
No. 61	U. S. Government	Dredges	2000		254-0 x 46-0 x 22-6	1600	
No. 63	New York Central R. R.	Barge	330		144-0 x 27-0 x 11-6	...	
No. 64	New York Central R. R.	Barge	330		144-0 x 27-0 x 11-6	...	
No. 65	Standard Transportation Co.	Barge	870	10	254-0 x 37-6 x 14-0	600 B.H.P.	
No. 66	Tidewater Oil Co.	Barge	500		162-0 x 36-0 x 10-0	...	
No. 67	Tidewater Oil Co.	Barge	500		162-0 x 36-0 x 10-0	...	
No. 68	Tidewater Oil Co.	Barge	500		162-0 x 36-0 x 10-0	...	
<b>TODD DRY DOCK &amp; CONSTRUCTION CO., TACOMA, WASH.</b>							
36	Alaska Steamship Co.	Passenger	4500	15	350-0 x 49-0 x 33-6	5600	Apr. '23
<b>TOLEDO SHIPBUILDING CO., TOLEDO, O.</b>							
174	Kinsman Transit Co.	Freight	8000	11	580-600 x 60-0 x 32	2000	
175	Huron Transportation Co.	Bulk Cement	5000	11	334-350 x 55-0 x 28	1500	
<b>E. JAMES TULL, POCOMOKE CITY, MD.</b>							
James A. Boyd, Anglesea, N. J.	Aux. Fshg.		15		52-0 x 15-0 x 4-0	...	
F. W. Mears, Accomac, Va.	Aux. wkg. bateau				64-11 x 20-0 x 7-0	...	
<b>UNION CONSTRUCTION CO., OAKLAND, CALIF.</b>							
No. 24	Martinez	Oil Barge	1015		207-6 x 38-0 x 16-6	...	1- 6-23
<b>CHARLES WARD ENGINEERING WORKS, CHARLESTON, W. VA.</b>							
No. 21	U. S. Lighthouse Service, Washington	Lighthouse Tender			164-6 x 32-6 x 5-0	...	
No. 22	U. S. Engineer Office, Florence, Ala.	Steel Barge			120-0 x 36-0 x 7-6	...	
No. 23	U. S. Engineer Office, Florence, Ala.	Steel Barge			120-0 x 36-0 x 7-6	...	
No. 24	Kelly Axe Mfg. Co., Charleston, W. Va.	Towboat	72		106-3 x 20-0 x 4-0	200	
No. 25	Kelly Axe Mfg. Co., Charleston, W. Va.	Derrick Barge	63		42-0 x 30-0 x 5-0	...	
No. 26	Kelly Axe Mfg. Co., Charleston, W. Va.	Covered Barge	210		126-0 x 24-0 x 7-0	...	
No. 27	Kelly Axe Mfg. Co., Charleston, W. Va.	Open Barge	210		126-0 x 24-0 x 7-0	...	
No. 28	U. S. Engineer Office, Mobile, Ala.	Diesel elec. twbt.			119-3 x 23-0 x 5-0	...	
<b>CANADIAN VICKERS, LTD., MONTREAL, QUE.</b>							
Hopper Barge	Canadian Government	Hopper Barge	1250	10	210-0 x 35-0 x 19-0	1250	4-15-23
<b>COLLINGWOOD SHIPBUILDING CO., LTD., COLLINGWOOD, ONT.</b>							
No. 72	Bulk Freighter		1700	8	252-0 x 43-0 x 19-0	700	4- 7-23

# Equipment Used Afloat, Ashore

**Improved Lifeboat Releasing Gear—Rivet Cutter Designed for Rapid Work—Automatic Valve for Hose Coupling—Oil Burner for Use Under Scotch Boilers—Free Rocking Face Hammer Die**

ALL ships from the smallest tramp to the greatest liner must, by law, carry lifeboats of sufficient capacity to accommodate all persons on board. It is not sufficient, however, to carry lifeboats on deck and trust to luck in safely launching them in time of need. The ideal condition to insure a maximum of safety is, of course, to have good lifeboats properly stowed in a clear accessible portion of the boat deck, under good mechanical davits well oiled and in perfect working order. Under these conditions, given a reasonable chance, the boats may readily be launched before the ship sinks. Once in the water and as soon as water borne, it is essential that the boat be instantaneously released. The importance of this, of course, lies in the danger in bad weather of crushing the boat against the ship's

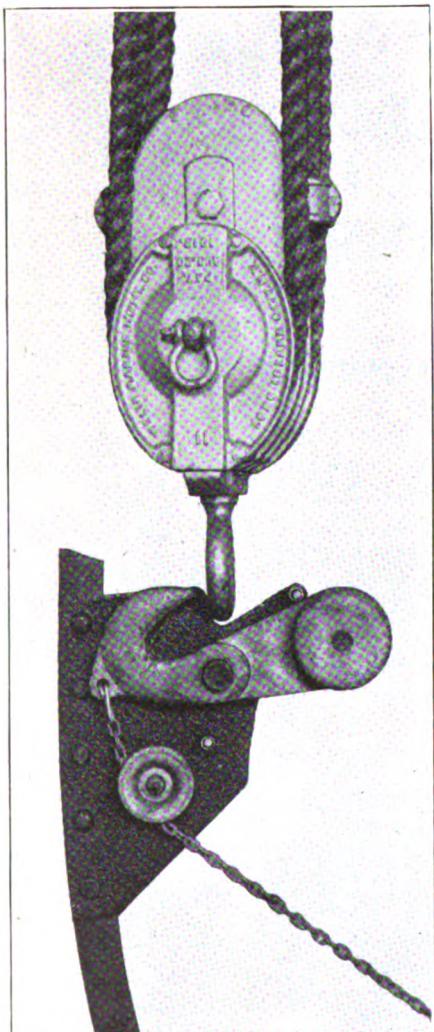


FIG. 1—GEAR IN UNLOCKED POSITION

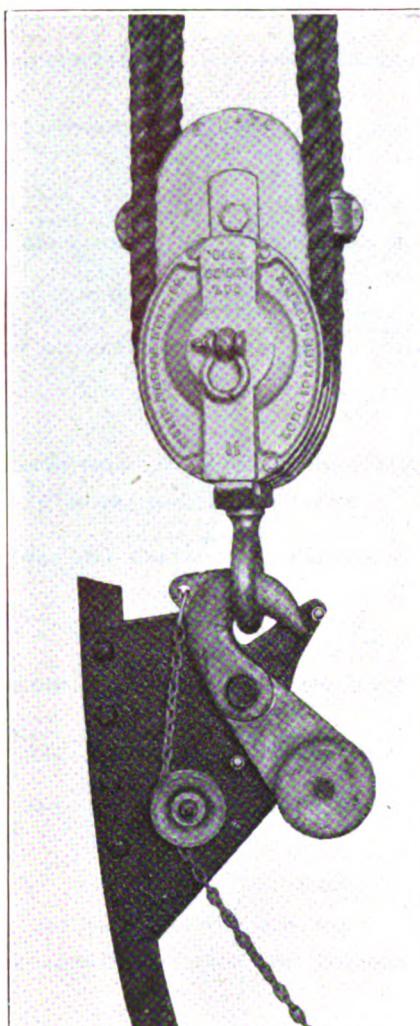


FIG. 2—GEAR IN LOCKED POSITION

side or capsizing. On the other hand, release from the davit tackles should not occur before the boat is water borne as to do so is to invite disaster, particularly in a rough sea.

The old fashioned method of slinging a lifeboat to tackle blocks by means either of regular open hoisting hooks in the end of the boat engaging eyes in the bottom of the blocks or with hoisting rings in the ends of the boat engaging open hooks in the ends of the boat, is not safe, and is not considered good practice because of the difficulty in releasing the boat. With this arrangement to free the lifeboat after launching in an emergency often involved cutting the falls. Under even the most favorable conditions, simultaneous and quick release of both ends would be impossible. To overcome this difficulty, releasing gears

were designed with the object of releasing the lowering tackle from both ends of the lifeboat, simultaneously and instantaneously by one man with a single motion.

Of all releasing gears the Mills type, invented in England over 20 years ago, has been used most extensively all over the world. This gear combines quick release with all the advantages of positive connections obtained in using the old simple gear of the open hook or closed eye in the lifeboat ends with an eye or open hook in the bottom of the block, with seizing across the throat of the open hook to prevent slipping out of the eye. The result is equivalent to linking the lifeboat to the tackles as if with welded eye in eye, making it physically impossible to release the lifeboat from tackles either through accident

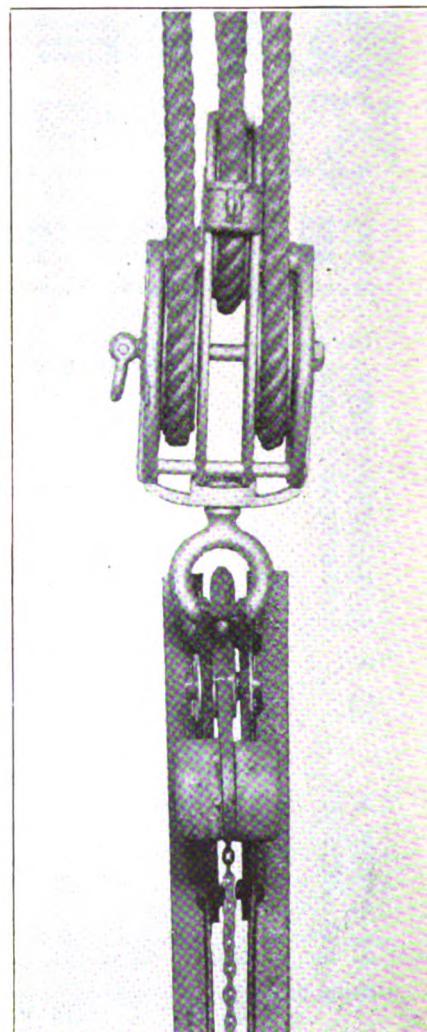


FIG. 3—END VIEW, GEAR LOCKED

or with purpose, until the boat is water borne, when with the weight taken up, relieving the load—the hoisting hooks can be swung open by pulling on a handle connected to the hooks on both ends by two lines of light chain over fair lead pulleys.

The weighted ends of the hooks acting through gravity bring them back to their normal position of closed eyes. To

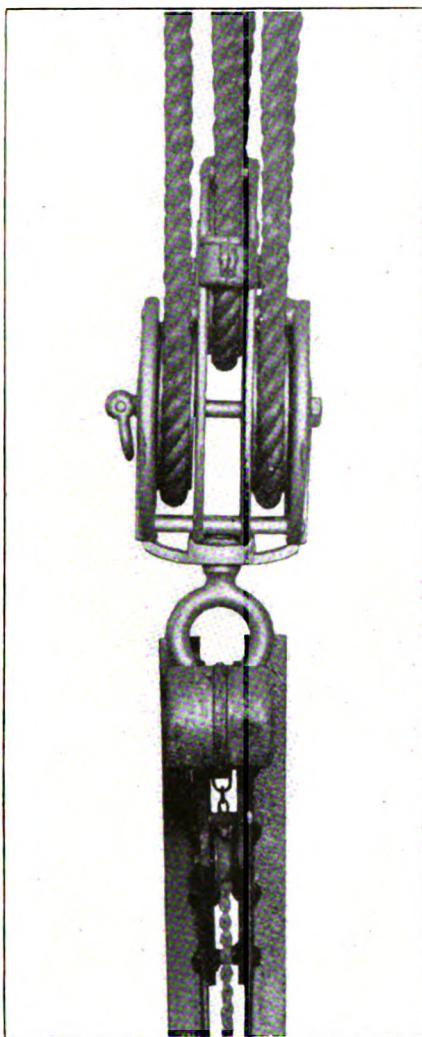
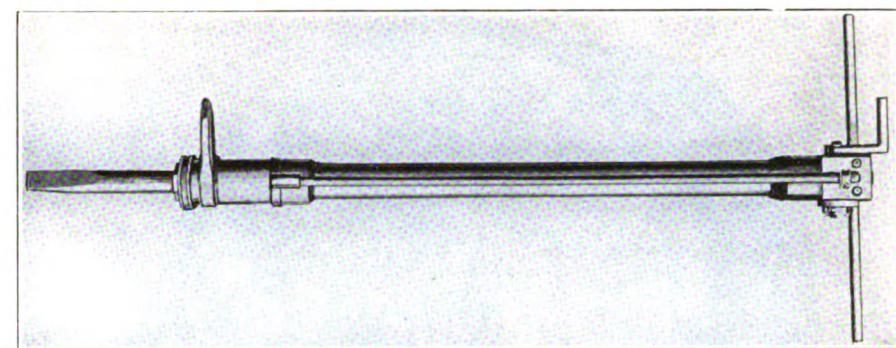


FIG. 4—END VIEW, GEAR UNLOCKED

engage the eyes in the bottom of the blocks, the blocks are pressed down on the nose of the hook until it opens and then automatically closes due to the weighted end of hook.

The accompanying illustrations indicate the recent improvements made in this releasing gear by the Welin marine department of the American Balsa Co. Inc., 305 Vernon avenue, Long Island City, N. Y. Fig. 1 shows a side view of the new Mills gear installation, with the near supporting plate removed, with hook in the open position releasing the block and falls, while Fig. 2 shows a similar view with the hook in closed position. Fig. 3 shows end view with both supporting plates complete with hook in locked position, while Fig. 4



RIVET CUTTER WHICH DELIVERS LIGHT BLOWS IN RAPID SUCCESSION

shows a side view in the unlocked position. In the new design, the number of parts has been reduced by eliminating the end platforms and platform plates formerly necessary and making the supporting plates which take the pin of the hook act as a guide for engaging the eye or shackle of the block. With this arrangement, all of the parts subjected to strain are made of forged steel instead of steel castings, consequently making the gear acceptable to the British board of trade as well as the United States steamboat inspection service.

Some of the advantages claimed and substantiated for this gear are as follows:

1. Simplicity and reduced number of parts with corresponding minimum chance of getting out of order and less cost.
2. Impossibility of release, by accident, or intent until boat is water borne.
3. Security due to strength being that of eye in eye and the material forged instead of cast.
4. Simple to install and easy to operate.
5. Positiveness of action with limit stops eliminating chance of accident.

Any type of lifeboat may be fitted with this gear. The essence of its operation for the sake of safety is release only when the lifeboat is water borne.

### Gets Chain Contracts

The National Malleable Castings Co., Cleveland, has been awarded the contract for equipping five new 600-foot freighters now under construction at the Lorain, O., yard of the American Shipbuilding Co. Each vessel will be equipped with two 90-fathom lengths of 2½-inch cast chain. Two of these vessels are being built for the Pittsburgh Steamship Co. and one each for the Panda Steamship Co., Franklin Steamship Co. and Interlake Steamship Co.

Though operating its transpacific services for only a period of 21 months, more than 25,000 passengers were carried on the Admiral Oriental liners on their inter-Oriental route and their transpacific run during the last year.

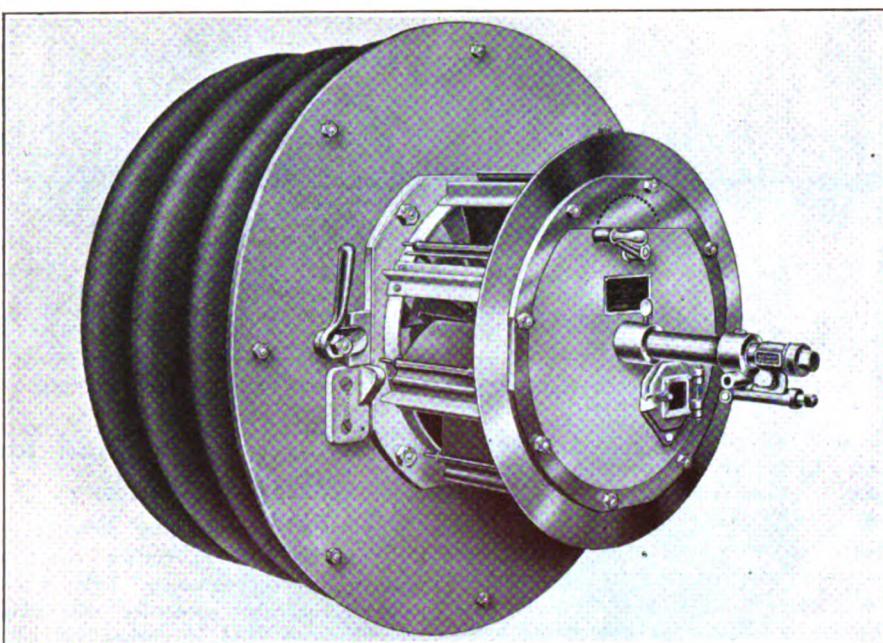
### Rivet Cutter Designed for Rapid Work

New type of rivet cutter designed on the principle that in cutting rivets, a number of comparatively light blows delivered in rapid succession will cause less vibration and distortion of steel plates than a few intermittent, heavy blows, has been introduced recently by the Chicago Pneumatic Tool Co., New York. A view of the new device is shown in the accompanying illustration. The tool is made up of a dead handle, a throttle handle of the crank design, a throttle valve of the taper type, a back head screwed into the cylinder and secured by a locking device, a cushion chamber in the rear end of the cylinder, a cylinder of seamless steel tubing, a bypass from the back to the front head, a nonremovable electrically welded front head, square coiled spring buffer, adjustable chisel lock, hand hold of the square handle type, and the chisel. To operate, the throttle handle is moved in a line parallel with the cylinder. Each stroke of the piston is hand controlled.

### Designs Automatic Valve for Hose Coupling

An automatic air house coupling to be used on compressed air lines, has been recently introduced by the Robinson Machine Co., Muskegon, Mich. The device is a combined valve and coupling made in two halves. The half containing the automatic check valve is so constructed that the pressure of the air in the line comes on the top of the valve insuring a constant valve action. The valve proper consists of a brass stem with a renewable leather disk valve facing, which is easily replaced without special tools. Two projections with a crossbar extending beyond the valve seat act as a protection for the valve when it is dragged along the floor. This crossbar forms a pivot for hooking on the hose end shank when making the connection.

The hose shank half has two small projections beyond the valve face to



NEW OIL BURNER ADAPTED FOR USE UNDER SCOTCH BOILERS

push open the valve when the connection is being made and thus admit the pressure to that section of the line. An eccentric clamping ring quickly locks the two halves of the coupling together. This device is claimed to save the time of the operator and also the volume of air in the line between the compressor and the point of cut off.

### Believes Motorships Will Be More Widely Used

On his arrival in this country recently, Sir Joseph Isherwood spoke optimistically on the prospects for motorships and cited the instance of the Fairfield Shipbuilding Co. in constructing a 20,000-ton passenger and freight steamship for the New Zealand Steamship Co. which will be 600 feet long and will be propelled by four diesel engines. A speed of 20 knots is called for. Prior installations of diesel engines have usually been in smaller ships with speeds not exceeding 12 knots.

### Sells 33 Diesel Engines

The shipping board owned 33 diesel engines, the last of which were sold in January. These engines were disposed of as follows:

No. H.P.	Buyer
13-900	War Department.
3-900	Munson Line, N. Y.
2-825	Standard Oil Co., N. Y.
3-825	Frank Lynch, Benson Lumber Co., San Diego, Cal.
1-825	Federal Light & Traction Co., N. Y.
4-825	Moore Shipbuilding Co., San Francisco.
2-750	Port of Portland, Portland, Oreg.
1-750	Universal Machine Co., Bowling Green, O.
2-750	Federal Shipbuilding Corp., Kearny, N. J.
2-320	Cary Davis Towing Co., Seattle.

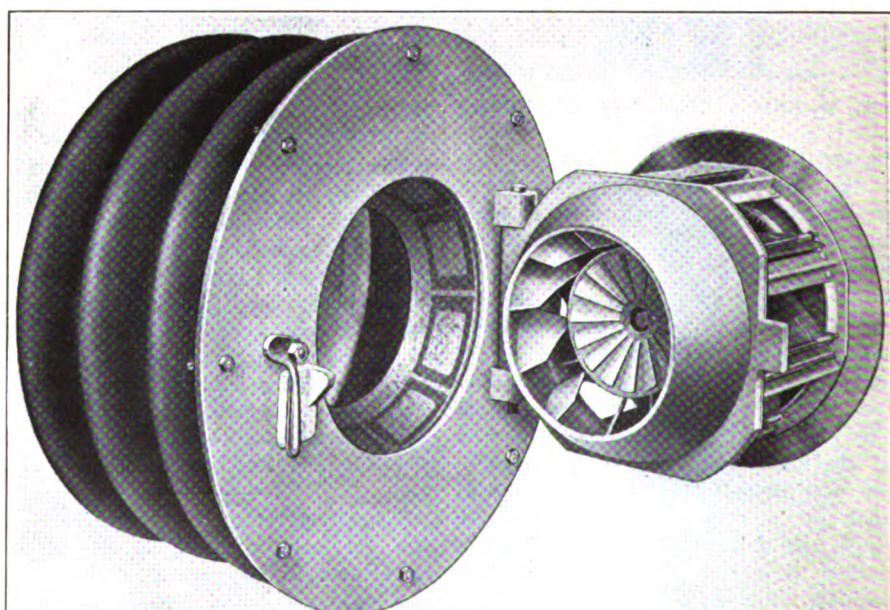
### Burner for Use Under Scotch Boilers

Results secured for many years with its mechanical oil burners under its own boiler has led the Babcock & Wilcox Co., New York, to adapt for use under Scotch boilers its latest type burner called the San Diego. This burner adheres to the same general design covering all the various types of burners built by the Babcock & Wilcox Co. Its size and proportions, however, are made to conform to Scotch boiler furnace conditions.

This burner is hinged to the furnace front plate and the simple operation of breaking one pipe joint and dropping the latch enables one at a moment's notice to swing out the entire burner and register, leaving free access to the furnace. Several installations of the burners have been made on Scotch boilers and the results obtained are said to have been quite satisfactory. The operators have reported a saving in fuel. One company after a test on one of its vessels has just equipped seven other vessels with this burner.

### Free Rocking Face Hammer Die

Beaudry & Co., Inc., Boston, have developed a new combination hammer die for drawing tapers. This is designed for any make or size of trip, air or steam hammer, by the use of which one man, it is said, in one heat can draw any taper that can be handled under a hammer. As shown in the illustration, one end is provided with a tilting face so supported that



BURNER IS SWUNG OUT BY BREAKING ONE PIPE JOINT AND DROPPING THE LATCH

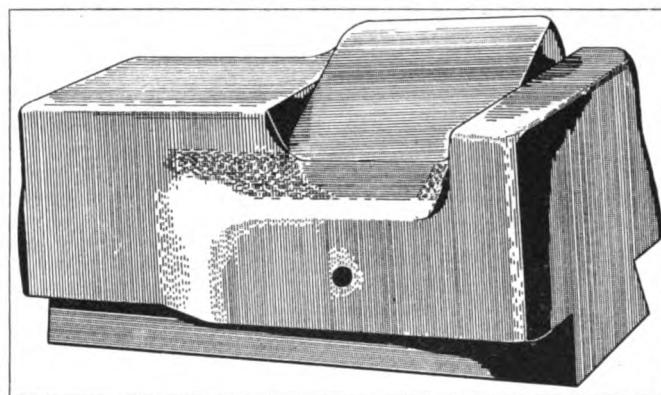
it moves freely on a fixed axis. The operator by merely shifting the position or angle of the work and striking a light blow, automatically adjusts this tilting face to any desired angular position with relation to the top hammer die. Thus any desired taper can be given the work and any shaped piece can be completely finished and smoothed up, point and all, without any hand finish. Any scale falling between the tilting face and die holder is worked into a pit through grooves and forced out through a hole on each side of the die holder so that the tilting face works freely at all times.

The fixed plain part of the die face can be used for general forging the same as any ordinary die.

The die holder is cast of gun iron while the tilting face is forged from high carbon steel.

This die will be found useful on such work as flat, cape, diamond, point and other chisels, calking tools, cant dogs, wedges, shims, slice bars, crowbars, drift pins, marlin spikes, eccentric rods, valve yokes, keys, gibs and wrenches.

At the end of the last fiscal year approximately 50,000 men were employed on vessels of the American marine.



HAMMER DIE PROVIDED WITH A TILTING FACE FOR DRAWING TAPERS

### Heavy Freight Offerings at Boston

Tonnage of marine freight handled at the port of Boston has grown steadily during the past month. Nearly all shipping interests report having maintained full sailing schedules with better freight offerings both for exports and imports than at any other time in many months. The peculiar market situation, both in coal and pig iron, has helped to increase the importation of these materials. Several thousand tons of foreign pig iron arrive at Boston each week and receipts of foreign coal at the port seldom fall below 20,000 tons a week.

Coastwise trade has greatly improved partially because of car shortages and other railroad transportation difficulties, but also because general manufacturing

throughout the district has improved. An increase of more than 100 per cent in arrivals of steamers at Boston during the past month as compared with the same month a year ago is reported. During January more than 100 overseas vessels arrived at the port. Anxiety among shippers and port officials has recently been aroused because of the congestion at Boston docks which bids fair to divert incoming ships to other ports. This congestion is

due partly to shortage of freight cars and this in turn, according to port officials, is traceable to the unfavorable grain differentials at Boston which divert export shipments from the West to other ports, and thus prevents the return use of these cars for distribution of imports. It is claimed that 4000 cars will be required to move material which is accumulated at Boston docks.

Installations of gyrocompasses were made during January by the Sperry Gyroscope Co., New York, on the PARIS, French Line; W. G. WORDEN, WALTER JENNINGS, and THOMAS H. WHEELER of the Standard Oil Co. of New Jersey; ANDREA F. LUCKENBACH of Luckenbach line, and FAIRFIELD CITY of the Isthmian Steamship lines.

## Business News for the Marine Trade

The plant built on Vogel's island in Milwaukee during the war by the Fabricated Ship Corp., and since 1919 used by the Milwaukee Marine Repair Co., has been taken over by the Wisconsin Steel & Dock Co., a new corporation of which J. J. Cato is general manager and F. W. Stevens, secretary and treasurer. This company will take over and operate a wooden shipbuilding plant at Keweenaw, Wis. The Milwaukee yard will be improved by installing a sectional drydock handling the largest Great Lakes vessels for repairs. It is engaged in a large number of repair jobs and in the construction of small craft and has inquiries for bids on three lake tugs and a number of barges. Mr. Cato formerly was with the Clyde shipyards in Scotland and during the war was chief inspector at Duluth for the Emergency Fleet corporation. Mr. Stevens supervised finishing work for the Fabricated Ship Corp. and previously was general superintendent of the Ferguson Shipbuilding Co. at Buffalo.

The Blythswood Shipbuilding Co., Ltd., has secured an order for a twin-screw motor vessel. The ship, which is intended to be used in trade between American Pacific ports and the Far East, will be 435 feet long and 57 feet beam with 26-foot draft. Her propelling machinery will consist of Beardmore-

Tosi 4-cycle oil engines and all auxiliary equipment will be electrically driven, including the winches, the steering gear and the windlass, the power being provided by three large generating sets installed in the main engine room.

Creation of a state ship and port commission with a fund of \$2,000,000 with which to build up state ports and to purchase a fleet of ships, was one of the recommendations made by Governor Cameron Morrison of North Carolina in his biennial message to the state legislature.

The Philadelphia Ship Repair Co., Mifflin street wharf, Philadelphia, is busy on numerous repair jobs. It is using its two large floating docks in speeding up the work.

Officials of the Philadelphia & Reading railroad are contemplating replacing their present fleet of wooden ferry boats plying between Camden, N. J., and Philadelphia with a fleet of steel vessels.

Capitalized at \$2,000,000, the Porto Rico American Steamship Corp. has been chartered in Delaware by W. H. Stayton, W. H. Stayton Jr., and Arthur J. J. Townsend, Baltimore. These men are officials of the Baltimore Steamship Co. which has been engaged in the Porto Rican trade for some time. It is understood that the new line

will devote its attention largely to the carriage of coal and timber.

With a capital stock of \$150,000, the Commonwealth Steamship Lines, Inc., Portland, Me., has been incorporated to engage in a general steamship business. H. P. Sweetser is president of the company.

The Pacific Diesel Engine Co., San Francisco, recently amended its charter and increased its capital stock from \$1,000,000 to \$2,000,000.

Negotiations for the purchase from the shipping board of the site of the Skinner & Eddy shipbuilding plant No. 2, comprising 20 acres, have been resumed by the Seattle port commission. If the purchase is effected the commission plans to erect new shipping terminals and also a large immigration station at an estimated cost of \$300,000. The commission has offered the shipping board \$500,000 for the property.

The Chesapeake & Ohio railroad has before it a number of development projects, chief of which is the improvement of the tidewater terminal at Hampton Roads.

Announcement recently was made by the Eastern Steamship Lines, Inc., that a contract has been awarded the Bethlehem Shipbuilding Corp., for the construction of two combined passenger and freight steamers at

Sparrows Point, Md., the vessels to be completed by the spring of 1924. They will be used for the service between Boston and New York by way of the Cape Cod canal. The cost of the two ships will exceed \$3,500,000.

Contract for the construction of a steel oil barge for the Associated Oil Co., to cost approximately \$45,000, has been obtained by the Los Angeles Shipbuilding & Drydock Corp., Los Angeles.

The St. Helens Shipbuilding Co. has been awarded the contract for building two ferries for the Long-Bell Lumber Co. to operate between Longview on the Washington side of the Columbia, and Rainier, Oreg. Each will be 120 feet long and equipped with diesel engines.

The sale of the electrically driven beam trawler MARINER to the New London Ship & Engine Co., Groton, Conn., for \$5200 at public auction recently was approved by the federal court.

For service as a merchant ship in the Pacific coastwise and Alaska trade, the United States naval collier CAESAR has been purchased by R. W. Crosby, Seattle shipping man, from the navy department.

An issue of \$250,000 of bonds has been proposed in West Palm Beach, Fla., for the purchase and improvement of terminal docks. Contract for the twin internal combustion engines of 600 horsepower, reversible diesel type, for the Canadian Pacific ferry between Bellingham and Vancouver island, recently was awarded McIntosh & Seymour, Auburn, N. Y. The ferry is being built by Harrows & Esquimalt.

The bureau of yards and docks, navy department, Washington, has announced it plans a fuel oil pier, bulkhead and dredging at Boston harbor.

The construction of five barges and machinery has been awarded to the Green Bay Dry Dock Co., Green Bay, Wis., by the United States engineer's office at Milwaukee. The contract calls for \$72,400.

The United States engineers' office at Nashville, Tenn., contemplates the purchase of two derrick boats of steel and nine barges.

Contract for the construction of two diesel towboats has been awarded the Hildebrand Shipyard at Kingston, N. Y., by the Transmarine Corp. The contract is said to amount to approximately \$75,000. The boats are to have an overall length of 63 feet, beam 14 feet, draft 7 feet. The propelling machinery of each vessel will consist of a 6-cylinder, 180-horsepower diesel engine, furnished by the New London Ship & Engine Co., Groton, Conn.

The Philadelphia & Reading railroad has awarded a contract to the McMyler-Interstate Co., Bedford, O., for furnishing and erecting at the Port Richmond terminal a 120-car dumping machine. This will be the largest unit of its kind in the United States and will cost approximately \$1,500,000. It will replace the gravity trestle pier which was burned last November.

Capitalized at 100,000 shares without par value the Planet Steamship Corp., Portland, Me., recently was incorporated by M. E. Foster, M. G. O'Neil, A. B. Farnham and others.

The Heggie Simplex Boiler Co., 1708 Collins street, Joliet, Ill., has been incorporated with \$150,000 capital stock by Thomas M. Heggie, Charles A. Russell and John F. Heggie. The company is represented by Barr & Barr, James G. Heggie building, Joliet, Ill.

The Chicago Oxwelding Corp., 2613 South State street, Chicago, has been incorporated with \$25,000 capital stock by I. N. Matcher, Otto Matcher and H. W. Heitz. The company is represented by Heitz & Witlauf, 190 North State street.

## Business Changes

PETER J. SHOMER. Shomer Co., 510 Kirby building, Cleveland, has been appointed by Row & Davis Engineers, Inc., New York, as their representative in the Great Lakes district. Mr. Shomer was formerly associated with the American Shipbuilding Co., Cleveland, and his experience well fits him for handling the Row & Davis equipment.

\* \* \*

The Standard Conveyor Co., North St. Paul, Minn., has purchased all the rights, titles and patents of the line of portable and sectional piling, elevating, conveying, loading and unloading machinery for handling packed and loose materials, manufactured by the Brown Portable Conveying Machinery Co., North Chicago, Ill.

\* \* \*

The T. A. Scott Co. and the Merritt & Chapman Wrecking Co., which recently merged, are now working under their new name of the Merritt-Chapman & Scott Corp. Their Boston offices are at 364 Border street, East Boston.

\* \* \*

S. L. Kreider announced his retirement, at the end of December, as southern agent for the Williams Steamship line, with headquarters in Los Angeles. Mr. Kreider plans to open his own offices in the southern city. F. C. Bennett succeeds Mr. Kreider with the Williams line, and will be succeeded in San Francisco by L. J. Dugan, of the rate department.

\* \* \*

Swayne & Hoyt have enlarged and improved their offices on Sansome street, San Francisco, and the headquarters at Pier 21, in order better to handle the new passenger line out of Pacific coast ports for South America for the shipping board. The three government vessels, PRESIDENT HAYES, PRESIDENT HARRISON, and SUSQUEHANNA, will maintain this service.

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The Admiral line has opened an office at 1451 Franklin street, Oakland, Cal., for business on the mainland side of San Francisco bay. M. F. Cropley, assistant general freight agent, is in charge. Both passenger and freight traffic is being handled.

\* \* \*

J. T. Eason, formerly sales manager for the shipping board in charge of Hog Island, and Fred F. Drysdale, who was associated with him as sales engineer, have formed a company known as the Standard Steam Winch & Hoist Co. with offices in New York and Philadelphia. They have acquired all the new winches on the Atlantic coast of a well known type, formerly owned by the shipping board and are marketing them to steamship companies, shipyards and other users of this form of equipment.

## Late Marine Patents

Copies of any one of these patents can be obtained by forwarding 25 cents in stamps to Siggers & Siggers, patent attorneys, National Union building, Washington, and mentioning MARINE REVIEW.

1431924—Motor boat, Martin Beebe, Marine City, Mich., assignor to Sidney C. McLouth, Marine City, Mich.

1432142—Submarine boat, Kurt Van Sanden, Krousbagen, near Kiel, and Hans Techel, Kiel, Germany, assignors to Fried Krupp Aktiengesellschaft, Kiel-Guarden, Germany.

1432611—Boat, Angel Nunez, New York.

1432748—Suspension tackle for boats, Walter J. Farley, Manitowoc, Wis.

1432948—Submarine signaling, George F. Atwood, Newark, N. J., assignor to Western Electric Co., Inc., New York.

1433243—Ship protector, John G. Smith, Jackson, Tenn.

1433563—Swimmer's motor, Lyman P. Osterhout, Kenosha, Wis.

1433595—Apparatus for tracing the routes of warships and merchant vessels, Marie Emil-Alfred Baule, St. Cyr, France.

1433706—Hauling-up plant for ships, Frederick Duwe, Mains, Germany, assignor to Maschinenfabrik, Augsburg-Nuernberg, A. G. Nuernberg, Bavaria, Germany.

1434570—Collapsible boat, Lewis E. Towers, Detroit, assignor of one-third to John A. McKinley and one-third to Lee Terwilliger, both of Detroit.

1434671—Steam or electric ship propulsion, Walter J. Belsey, Helensburgh, England.

1434868—Boat propelling device, Stanislaw Winnikowski, South Manchester, Conn.

1435040—Lifeboat, James E. Wise, Great Crosby, England.

1436418—Boat and method of making, Charles A. Ward, Mount Vernon, N. Y.

1436611—Ship speed indicator, Richard Star, Brooklyn, N. Y.

1436933—Water turbine, Donat Banki, Budapest, Hungary.

1437310—Swimmer's glove, John B. Ingram, Los Angeles, Cal.

1437387—Lifeboat, Christopher Bretschert, Winnipeg, Man., Can.

1437506—Conveyor for barges and similar vessels, Nahum Fay and Norvin A. Fay, Rio Vista, Cal.

1437593—Combined scaffold bench and anchor, Frank B. Johnston, New York, assignor to American Safety Device Co., a corporation of New York.

1438012—Propeller, George Bauer, Neenah, Wis.

1438246—Sailing vessel, Carl W. A. Koelkeneck, Pittsburgh.

1438688—Rowing apparatus, A. W. Frederick Bennik, Delft, Netherlands.

1438986—Flying boat, Claudius Dornier, Friedrichshafen, Germany.

## New Trade Publications

LININGS—The Quigley Furnace Specialties Co., New York, is circulating an 8-page illustrated folder in which refractory material for lining and patching cupolas, ladles, converters, pit furnaces, tilting crucible and open-flame furnaces, etc., is described and its use illustrated.

MILWAUKEE—An attractive 32-page illustrated booklet has been published by the Milwaukee board of harbor commissioners, containing an historical, descriptive and prospective treatise on the port of Milwaukee. Harbor work is described and illustrated, as is the development of trade in coal, grain, etc. The booklet is thorough and is replete with halftone illustrations of the various points of interest about the port.

# Late Flashes On Marine Disasters

Brief Summaries of Recent Maritime Casualties—  
A Record of Collisions, Wrecks, Fires and Losses

VESSEL	DATE	NATURE	PLACE	DAMAGE RESULTING	VESSEL	DATE	NATURE	PLACE	DAMAGE RESULTING
Annie P. Chase	Jan. 16	Heavy sea	Sandwich	In tow	Jersey City	Jan. 25	Collision	New Castle	Damaged
Alfarata	Jan. 18	Heavy sea	Halifax	Sails lost	James Johnson	Jan. 31	Disabled	San Francisco	Leaking
Ada Tower	Jan. 23	Disabled	Key West	Sails lost	Kelbergen	Jan. 13	Heavy gales	At sea	
Azov	Jan. 25	Ashore	New York	Not stated	Kerhonkson	Jan. 25	Grounded	Londonderry	
Aylestone	Jan. 30	Collision	Barry Island	Heavy	Kingston	Jan. 26	Fouled piling	Cape Fear River	Lost life'bts
Africa Maru	Feb. 2	Fire	Nagasaki	Cargo dam.					Not stated
Annabel Cameron	Feb. 3	Disabled	Barbados	Rig. dam.					Sank
Arfeld	Feb. 3	Collision	New Orleans	Heavy					
Alice M. Colburn	Jan. 4	Wrecked	Egg Rock	Damaged	Logan	Jan. 12	Collision	Brooklyn	Undam.
Angelina C. Nunan	Feb. 6	Collision	Boston	Undamaged	Laurel	Jan. 12	Collision	Brooklyn	Dam.
Adonis	Feb. 6	Collision	Boston	Not stated	Lehigh	Jan. 9	Fire	Philadelphia	Slight
Bradburn	Jan. 6	Storms	At sea	To deck fit.	Lucille B. Creaser	Jan. 26	Leaking	Cape Breton	Jettis. cargo
Baker Bros. (tug)	Jan. 16	Collision	Liberty Island	Sank	Lacuna	Feb. 3	Collision	New Orleans	Heavy
Bourdonnais	Jan. 19	Grounded	Brooklyn	Floated					
Burpee L. Tucker	Jan. 19	Gale	St. John	To headgr.	Mar Rojo	Jan. 7	Collision	Houston Ship	Hole in bow
Belfast	Jan. 20	Disabled	Rockland	Rud'r. dam.	Montello	Jan. 16	Disabled	Sable Island	Not stated
Bradburn	Jan. 28	Ashore	Nantucket	Not stated	Moonlight	Jan. 16	Heavy sea	Sandwich	In tow
Bylawn	Jan. 26	Collision	New York	Plates dam.	Mississippi	Jan. 22	Collision	Bremerhaven	Damaged
Blossburg	Jan. 27	Not stated	Mobile River	Sank	Marshall	Jan. 21	Disabled	Wilmington, N.C.	Air pumps dis.
Buttonwood	Feb. 2	Fire	Lynnhaven Roads	Aband'd.					
Bessie Dollar	Jan. 30	Drifting	Pacific Ocean	Rud'r. dam.	Moween	Jan. 26	Abandoned	At sea	Sinking
Beaumont No. 3	Jan. 29	Fire	Lake Charles, La.	Destroyed	Maid of England	Jan. 28	In tow	Halifax	Leaking
Bourbonnais	Feb. 7	Disabled	Bermuda	Rud'r. dam.	M. S. Dollar	Jan. 12	Crippled	Highland Light	Engine dis.
					Modica	Jan. 30	Disabled	New York	Stern-post broke
Canadian Gunner	Jan. 8	Fire	St. Johns, N.F.	Heavy cargo	Mandeville	Jan. 31	Collision	Not stated	Not stated
Commissioner	Jan. 17	Struck obj.	Off Red Hook	Beached	Manchester Merchant	Feb. 3	Grounded	Poplar Island	Floated
Charles C. Lister	Jan. 16	Heavy sea	Sandwich	In tow	Maria	Feb. 2	Ashore	Venice	Jettis. cargo
Capto	Jan. 20	Disabled	Newfoundland	Lost rudder	Mineola	Feb. 5	Collision	New York	Damaged
Ciudad De Monte-video	Jan. 18	Collision	Buenos Aires	Damaged					
Chateauroux	Jan. 11	Gales	At Sea	To deck fit.	Netherton	Jan. 4	Leaking	St. Johns, N.F.	To cargo
Clintonia	Jan. 27	Abandoned	E. of Sable Island	On fire	Neptune	Jan. 29	Fire	St. John, N.B.	Considerb'e
Cairnmona	Jan. 26	Ice	Cape Race	Not stated	Northern No. 36	Feb. 4	Collision	Delaware Break-water	Not stated
Coaxet	Jan. 27	Collision	Port Arthur	Slight					
Canadian Pioneer	Feb. 2	Fire	Auckland	To hold	Nolisement	Feb. 5	Collision	New York	Undam.
Catskill	Feb. 5	Collision	New York	Cabin stove					
Charles Fox	Feb. 5	Fire	Brooklyn	Heavy	Poinsettia	Jan. 6	Disabled	St. Thomas	Sails dam.
Canadian Seigneur	Jan. 26	Fire	St. Johns, N. F.	To coal	Patrick Henry	Jan. 15	Ashore	Sibay Isle	Water in hold
Cairnmona	Jan. 26	Ice	Cape Race	Not stated	Philip J. Kenney	Jan.	Fire	Ambrose Channel	Sank
Corby	Feb. 6	Disabled	At sea	H'tch's dam.	Persian	25	Disabled	New York	Rud'r. dis.
Catahoula	Feb. 7	Disabled	Cape Henry	Steerer dis.	Peter McIntyre	28	Heavy sea	At sea	Lost sails
					Pierrepont	Feb. 5	Collision	New York	Undam.
Don Parson	Jan. 13	Wrecked	Little Cranberry Isle	Broke in two	Plainfield	Feb. 5	Collision	New York	Not stated
Dorothy	Jan. 17	Ashore	Puerto Plata	Lost	President Wilson	Feb. 7	Collision	Gibraltar	Heavy
Dacre Castle	Feb. 3	Fire	Brooklyn	To hold					
Dorin	Jan. 15	In distress	Nantucket Shoals	Eng. dis.					
Emily S. Malcolm	Jan. 18	Abandoned	Ambergris Bay	Sank	Robin Gray	Jan. 10	Collision	Buttermilk Chan'l	To plates
Enden	Jan. 18	Gales	At sea	To bridge	Robert W. Thomaston	Jan. 12	Ashore	Long Sands	Not stated
Esperanza	Jan. 19	Collision	Buenos Aires	Sank	Robin Adair	Jan. 19	Grounded	Jersey City	Slight
Elizabeth Bandi	Jan. 24	Disabled	Absecon Light	Rud'r. dis.	Reviver	Jan. 21	Disabled	Bermuda	Machy. dis.
Edwin N. Ohl	Feb. 7	Fire	Fort William	Damaged	Recca	Jan. 18	Gales	At sea	To deck, etc.
Fishpool	Jan. 23	Disabled	Cape Henry	Rud'r. dis.	Stal	Dec. 29	Gale	At sea	To deck-houses, etc.
Fort Sumter	Jan. 13	Sink. cond.	Gulf of Mexico	Abandoned	S. O. Barge 86	Jan. 10	Collision	Buttermilk Chan'l	Not stated
Frances Parsons	Feb. 6	Grounded	Vineyard Haven	Undam.	S. L. Crosby	Jan. 12	Struck pier	New York	On fire
Frank M. Deering		Ashore	Cobs Island	Slight	Simon F. Tomlie	Jan. 18	Disabled	Honolulu	Foremast gone
Golden Gate	Jan. 5	Fire	San Francisco	Not stated	Susquehanna	Jan. 22	Drag anchor	Beaufort, N. C.	Ashore
Germania	Jan. 14	Disabled	At sea	Not stated	Severnemeade	Jan. 25	Fire	At sea	In bunkers
Geneva Kathleen	Jan. 19	Heavy sea	Key West	Sails gone	Shickshinny	Jan. 27	Grounded	Jacksonville	Not stated
Gertrude Parson	Jan. 17	Ashore	Digby	Undam.	Sinasta	Jan.	Disabled	Hamburg	Eng. dam.
					Sixaoala	7	Collision	Not stated	Hole in bow
					Snetind		Disabled	Peaked Hill Bars	Sails gone
Harry A. M'Lennan	Jan. 1	Rough sea	At sea	Lost d'kl'd.					
H. H. Rogers	Jan. 7	Collision	Houston Ship Channel	To plates					
Helder	Jan. 19	Disabled	St. Johns, N. F.	Hold leak.	Tom Beattie	Jan. 13	Leaking	New York	Jettis. cargo
Hastings County	Jan. 19	Collision	River Thames	Above wat'r line	Tide	Jan. 16	Collision	Liberty Island	Not stated
Hinckley	Jan. 23	Disabled	At sea	No. 1 bilge leak.	Theodore H. Rohde	Jan. 31	In tow	Lewes, Del.	Sink. cond.
Hiram D. McLean	Jan. 19	Not stated	St. John, N. F.	Badly dam.					
Horace A. Stone	Jan. 26	Disabled	Charleston	Not stated					
Hugh L. Bard	Jan. 26	Collision	New York	Undam.					
Herbert K. Rawding	Jan. 31	Collision	At sea	Slight					
Hermes		Collision	Portland, Me.	Stem dam.					
Hochelaga	Feb. 2	Struck obj.		Leaking	West Calumb	Jan. 12	Collision	Brooklyn	Sank
					Western Plains	Jan. 12	Collision	Brooklyn	Not stated
Ivar	Jan. 5	Heavy sea	At sea	To lifeboat	Wuerttemberg	Jan. 12	Disabled	Hamburg	Prop. blade lost
Ignazio Floria	Jan. 31	Cargo overheated	New York	Jettis. some cargo					Steerer gone
					Wyfax	Jan. 16	Disabled	Troon	Not stated
John P. Collins					W. C. Kennedy	Jan. 10	Ashore	French Islands, St. Pierre	
John Arbuckle (tug)	Jan. 10	Collision	New York					New York	Oil trouble
John W. Stout	Jan. 10	Collision	New York		West Zeda	Jan. 24	Disabled	New York	Not stated
		Dragged anchor	Shrewsbury	Considerb'e	Western Plains	Jan. 22	Fire	Wilmington	Boom broke
				Considerb'e	Willis A. Holden	Jan. 27	Storm	Delaware break-	Headgear gone
				Grounded	Wm. E. Litchfield	Feb. 4	Collision	water	Steerer dis.
									Heavy dis.
					West Arrow	Feb. 6	Disabled	At sea	Steerer dis.
					Winnebago	Feb. 6	In distress	At sea	Heavy
					War Mehtar	Feb. 7	Collision	Gibraltar	

## Obituary

Benjamin F. Cresson Jr., chief engineer of the Port of New York Authority, following an operation for appendicitis, died Thursday, Jan. 25, at Montclair, N. J. Mr. Cresson was



BENJAMIN F. CRESSON JR.

born in Philadelphia in October, 1873, and received his education at the Episcopal academy in Philadelphia, Lehigh university and the University of Pennsylvania. His career as engineer commenced immediately after graduation. Trained as a civil engineer, his later work was principally in connection with port developments, in which field he became an authority.

At the time of his death, he was considered one of the best informed men in this country on the subject of modern port development and engineering work in connection therewith. An able engineer, he acquired a great deal of practical experience in port development and management, supplemented by a comprehensive survey of all the principal ports of Europe and the United States.

In 1917 he was selected by the New Jersey Port and Harbor Development commission as its chief engineer. In this position, he organized and built up a staff of technical and practical men experienced in all phases of terminal operations and their relations to land and water transportation. With this staff he devised methods of a comprehensive character for the study of terminal operations in the port of New York. When the bstate commission was superseded by the Port of New York Authority, Mr. Cresson was appointed as chief engineer of the latter body. In this connection he presided

at and conducted a series of conferences with representatives of the railroads and steamship interests, trucking, warehouse and mercantile people. These conferences tended to prove the accuracy of the work done under his supervision.

His reputation as an engineer in port development work made him sought after for consultation in many of the ports of the United States where large improvements and expenditures were contemplated. He also had been chief engineer and later consulting engineer to the New Jersey board of commerce and navigation, since its organization in April, 1915. He was awarded the gold medal of the American Society of Civil Engineers for his paper on port development.

## Reduce Suez Canal Tolls

Beginning March 1, 1923, the tolls for transiting the Suez canal will be reduced by 25 centimes per ton. The tolls will then be 7.75 francs, (gold) per ton for loaded vessels and 5.25 francs (gold) per ton for ships in ballast.

The National Life Preserver Co., 11 Broadway, New York, reports contracts are being closed for subsidiary companies for Japan-China and for Australia-New Zealand. This will practically complete the world wide organization for the company's safety suit in its system of renting suits to water travelers and selling outright to yachtsmen, ships officers, crews, wireless operators and marine men in general.

## Orders for 50 Ships

**S**HIP orders placed with the yards and new contracts pending are shown below. During the past month, contracts have been let for 50 vessels, including two combination passenger and freight carriers, one large lake bulk freighter, three additional freighters, 40 barges and 4 tugs. The volume of inquiry is

### SHIP CONTRACTS AWARDED

Pittsburgh Coal Co., Pittsburgh, 20 barges for river service, to the American Bridge Co., Ambridge, Pa.

Reiss Steamship Co., Sheboygan, Wis., bulk freighter, 604 feet long, 580 feet keel, 60 feet beam, 32 feet deep, carrying capacity 13,000 tons, to the Toledo Shipbuilding Co., Toledo, O. She will have triple expansion engines and will make 12½ miles an hour loaded.

Eastern Steamship Co. Lines, Inc., two combination passenger and freight steamers, to Bethlehem Shipbuilding Corp., for construction at its Sparrows Point, Md., yard. Deliver in spring of 1924. These vessels will cost about \$3,500,000 and will operate between New York and Boston by way of the Cape Cod canal. They are 402 feet overall, 72 feet 6 inches beam and 16 feet, 6 inches draft, twin screw, turbine driven, oil burning with a normal speed of 17 knots and a maximum of 19 knots. Each vessel will accommodate 900 passengers.

Standard Transportation Co., subsidiary of Standard Oil Co. of New York, two steel tug boats, 105 feet 9 inches long, to Todd Shipyards Corp. for construction at its Tebo plant.

United States government engineers, 14 barges, one for Paducah, Ky., two for Evansville, Ind., four for Eddyville, Ky., and seven for Mobile, Ala., to Penn Bridge Co., Beaver Falls, Pa.

Long-Bell Lumber Co., two wooden ferries, 120 feet long, diesel-engine driven, cost about \$70,000, to St. Helens Shipbuilding Co., St. Helens, Oreg.

A. B. Johnson Lumber Co., lumber

fairly heavy and yards have more business booked and in sight than for months. Indicative of this fact is the gain in number of yard employes, 10 eastern shipyards having 1000 more workmen now than a year ago and nearly 3000 more men are employed by these same yards than last July.

steam schooner, for Pacific coastwise trade, capacity about 1,200,000 feet of lumber, to Peninsula Shipbuilding Co., Portland, Oreg. This vessel is the third ordered by the Johnson company.

Associated Oil Co., steel oil barge, to Los Angeles Shipbuilding & Drydock Corp., Los Angeles.

United States engineers, Milwaukee, five barges to Green Bay Drydock Co., Green Bay, Wis.

Transmarine Corp., Newark, N. J., two diesel driven towboats to Hildebrand shipyard, Kingston, N. Y.

### SHIP CONTRACTS PENDING

Great Lakes Towing Co., Cleveland, will place contracts soon for material for two steel tugs.

Large lake interest has inquiry out for one to three 600-foot bulk freighters.

Brokerage interest on Great Lakes has called for bids on 42 tugs for lake and barge canal service, each tug 130 feet overall. About 8000 tons of steel is involved.

Treadwell Engineering Co. has inquiry out for steel for barges.

Commissioner of docks and ferries, city of New York, has recommended to the board of estimates, plan for financing construction of three 130-foot steel screw propeller ferry boats, cost about \$550,000.

Clyde Steamship Co., New York, preparing plans for two passenger liners for service between New York and Jacksonville, Fla.

Two diesel-drive, lightships planned by the bureau of lighthouses, department of commerce, Washington.

# Activities in the Marine Field

Latest News from Ships and Shipyards

## Expect 100,000,000-Ton Freight Demand

AFTER several seasons of spotted business, lake operators are regaining confidence in the outlook for a new season. The coming year promises good business for the vessels. Iron ore, the major freight commodity moved on the lakes, is being consumed rather heavily by the blast furnaces and stocks on docks at the opening of the season will be lighter than a year ago. The movement predicted for this year is 55,000,000 tons or about 30 per cent above the 1922 figure. Coal will be in demand from the opening as the strike last summer prevented the usual accumulation on upper lake docks. A number of vessels already have been fixed for opening cargoes and the ships will have upbound cargoes this season while a year ago most of them were light when leaving the lower lakes. Grain shipments will depend upon the crop and the market but with an average movement, the total bulk freight movement will run above 100,000,000 tons. Many new vessels are being added to the fleet but the full capacity will probably be employed from the opening.

The Ann Arbor carferry No. 4 was driven on the piers at Frankfort, Mich., Feb. 14, while putting back for shelter. Her crew was taken off. The vessel was badly damaged. A severe gale caught the ferry, her load of 18 coal cars shifted, one car rolling overboard. Efforts are being made to lighter and float the ferry. She was built at Cleveland in 1906.

The annual meeting of the Lake Carriers' association will probably be held in April. Absence of many of the operators on winter vacations caused the postponement of the meeting which generally is held in Detroit in January.

The new steamer JOSHUA A. HATFIELD, 600-foot bulk freighter, being built at Lorain, O., by the American Shipbuilding Co., for the Pittsburgh Steamship Co., was launched Jan. 25. The RICHARD V. LINDABURY, building in the same yard for the same owners, will be launched Feb. 24. Both vessels will be ready for the opening.

The Canadian business of the George Hall Corp., after a reorganization, is now being carried on under the name of the George Hall Coal & Shipping Corp. The American business is handled under the name of the George Hall Corp. with offices at Ogdensburg, N. Y. The old St. Lawrence Railway Co. at Ogdensburg is now amalgamated with the Hall company.

The George Worthington Co., 802 St. Clair avenue, Cleveland, has inaugurated a marine supply department. The com-

pany is one of the oldest and largest hardware firms in the lake territory. J. A. Current will be associated with this new department. For a number of years he has been connected with the Upson-Walton Co., Cleveland.

The Port Huron lodge of the Shipmasters' association held its twenty-ninth anniversary ball on Feb. 12. The ball was in charge of Capt. Fred W. Thodey, Capt. James W. Kelley, Capt. Charles F. Krenkell, Capt. Herman J. Nelson, Capt. T. J. Crockett, Capt. Martin Johnston, Capt. L. Goldman, Capt. George Stevenson, Capt. Roy Stockdale, Capt. Frank Biddlecomb, Capt. William Stevenson, Capt. John Burns, Capt. Frank Randall, Capt. E. Warwick, Capt. Herman Friley, Capt. John McLean, Capt. A. P. Chambers, Capt. M. A. Budd, Capt. James Bennett, Capt. A. L. Currie, Capt. C. C. Currie, Capt. James Cassin, Capt. R. H. Knapp, Capt. H. R. Cornell, Capt. J. A. Edwards, Capt. Edward L. Sawyer, Capt. Thomas Fowler, Capt. H. E. Ditzel, Capt. H. B. Harrow, Capt. George Harper, Capt. H. S. Hughes, Capt. Chris. Johnston, Capt. Edward Johnston, Capt. Frank McMartin, Capt. H. J. Kendall, Capt. E. W. May, Capt. William D. Neal, Capt. Alexander Wilson, Capt. William A. Reed, Capt. E. W. Kiefer, Capt.

P. F. Powrie, Capt. Harry Maitland, Capt. Alexander Jamieson, Capt. Guy Geel, Capt. D. M. Crooker, Capt. Peter Ward, Capt. Harry Warwick, Capt. Joseph Neal, Capt. Robert Crawford, Capt. T. J. Carlisle, Capt. C. D. Brown, Capt. George Winters, Capt. John F. Hays, Capt. C. H. Davis, Capt. A. B. Commins, Capt. G. L. Montgomery, Capt. F. W. Manuel.

At annual meeting of stockholders of the Detroit & Cleveland Navigation Co. held Feb. 6, no change in the directors or officers was made. The appointive officers also were retained including George B. Wright, general agent at Cleveland and N. C. Math, general agent at Buffalo.

The United States lake survey reports the monthly mean stages of the Great Lakes for the month of January, 1923, as follows:

Lakes	Feet above mean Sea level	December	January
Superior .....	602.08	601.86	
Michigan-Huron .....	579.15	579.02	
St. Clair.....	574.12	573.70	
Erie .....	571.13	571.17	
Ontario .....	244.64	244.50	

## In the North Atlantic

THOMAS B. HEALEY, manager of the New York local of the National Association of Marine Engineers, has announced that the organization of 22,000 members has seceded from the American Federation of Labor, because of the federation's opposition to the ship subsidy bill.

Sold to Merritt, Chapman & Scott Corp. for dismantling the MINNESOTA, long noted as the largest freight carrying vessel in the world has seen the end of her career. The MINNESOTA, 33,000 tons deadweight, belonged to the International Mercantile Marine Co. She was built in 1904 at New London, Conn., for James J. Hill, and was designed for the Far East traffic to compete with the various Japanese lines. While in the Pacific Mail service, she carried a few passengers but mainly cargo. She proved too large and unwieldy for large and profitable operation and at the outbreak of the war, was sold for transatlantic service. The giant vessel did very good work during the war, but when

the slump in shipping came, proved a white elephant and was laid up.

\* \* \*

W. J. Love, vice president and general manager of the Emergency Fleet corporation has announced that the LEVIATHAN has been allocated to the United States lines and that the liner would be placed in service between New York, Cherbourg and Southampton before June 15. It was further stated that negotiations have been concluded between the United States lines and the London & Southwestern railway which owns the docks at Southampton, for berthing space. This will give the LEVIATHAN the same train facilities as the White Star, Cunard and other steamship lines using the port. The commander and chief engineer of the LEVIATHAN have not yet been appointed.

\* \* \*

Officers and sailors of the liner GIUSEPPE VERDI have been awarded 2 gold medals and 11 silver medals for bravery in rescuing the crew of 33 men from the sinking freighter MONTELLO on Jan. 17

in midatlantic during a storm. The presentation was made on board the liner in the North river by Col. Alexander Guidoni, naval attache to the Italian embassy at Washington.

\* \* \*

The interstate commerce commission recently decided that the Southern Pacific railroad steamship lines now rendering service between Galveston, New Orleans and New York, may increase their sailings to provide water transportation between all New England ports and the Gulf of Mexico west of New Orleans, without violating interstate commerce laws.

\* \* \*

Drydocking charges at the Commonwealth drydock, South Boston, owned by the navy department, have been reduced to 12 cents per gross ton for decking and undocking and 12 cents per gross ton per day for lay days after the first 24 hours. These rates apply to steamers, and also to sailing vessels with the exception that in the case of sailing vessels the rates apply on the net tonnage.

\* \* \*

The steamer MONITOR of the institutions department of the City of Boston, was sold at public auction on Feb. 7, at Bakers Basin, Quincy, Mass.

\* \* \*

Huntington T. Morse, director for Europe of the Emergency Fleet corporation, in a statement indicated practical evidence of the increasing prestige of the American merchant marine by the greater amount of westbound cargo now being carried by shipping board vessels. Mr. Morse noted the efforts of the European organization and of shipping board operators toward regularity of sailings and increase in general efficiency, thus materially cutting down operating expenses and number of claims and increasing dispatch in turn around, which now compares favorably with that of the principal competitors. He stated that there has been a steady and careful reduction in the board's European organization over the past year and a half without impairing efficiency. Shipping conditions in Europe, according to Mr. Morse, are beginning to show a slight improvement, although prominent shipping men in London believe that this improvement will not be marked for six months or a year from now.

\* \* \*

The Newport News shipyard has the AGWISMITH, one of a number of oil tankers of the Atlantic, Gulf & West Indies Co., undergoing an overhauling. Two other vessels conditioned for service at the Newport News yard for Ward line management are the AGWISTONE and the AGWIROND built by the Bethlehem Sparrows Point yard. Total cost of repairs to the three vessels is estimated at \$10,000.

\* \* \*

The Union Oil tanker LA PURISIMA is under repairs by the Bethlehem Shipbuilding Corp., the corporation having been successful with a bid reported to be \$18,287. The work is to be completed in 58 days.

\* \* \*

The Rebins Dry Dock & Repair Co., Brooklyn, was low bidder for repairs and reconditioning to the steamship CANIBAS recently purchased from the Green Star line for the Matson Navigation Co.

## Along the Gulf Coast

**I**N ORDER to protect agents having assured dates out of Galveston, Tex., the shipping board has fitted out two vessels and will keep them in readiness for emergencies. The vessels are the CRANFORD and NARBO and should one of the regular vessels fail to arrive in time to take cargo and sail on an assured date, one of these vessels will be used.

\* \* \*

The army cable ship JOSEPH HENRY, arrived at Galveston in January with a cargo of 110 tons of 12-inch projectiles and 15 tons of powder which was discharged for use by the coast defenses at Fort Crockett. While the JOSEPH HENRY is there she will lay a cable across Galveston harbor between Fort San Jacinto and Fort Travis thus completing the fire control system of Galveston's fortifications.

\* \* \*

The shipping board vessel, SCHOODIC arrived in Galveston in January to undergo repairs by the Galveston Dry Dock & Construction Co. She went aground in Bremen, but even though badly damaged, was able to make the return trip under her own steam. The contract amounts to \$27,450.

\* \* \*

The Master Stevedores association at Galveston has re-elected Capt. Edwin Goudge, president; R. M. Bain Jr., first vice president; and A. B. Norman, secretary for the ensuing year. Blakely Smith, Houston, Tex., was elected second vice president. The directors for the year are: T. B. Nicholls, Ben Inselman, Capt. H. H. Pyle, Capt. F. S. Blackadar, William Murphy, John Young, all of Galveston and P. C. Pfeiffer and C. Flanagan of Port Arthur, Tex.

\* \* \*

Officers of the Galveston Wharf Co. re-elected for the ensuing year as follows: John Sealy, president; George Sealy, vice president; C. W. Branch, auditor-secretary; and C. J. Ogilvy, treasurer. E. E. Gossrau was elected general manager to succeed J. J. Davis deceased. Other appointive officers who will continue in their present positions are: N. J. Anderson, superintendent of ways and structures; R. M. Sias, chief engineer; E. P. Williams, superintendent of elevators; H. F. Johnston, chief clerk grain department; Jesse Dunn, superintendent of railroad; H. H. Ray, master mechanic; W. M. Smith, superintendent of railroad dock labor; E. P. Cole, traffic manager; V. J. Stevenet, chief clerk railroad department; Capt. J. B. Brooks, captain wharf police.

\* \* \*

George Sykes of Lykes Bros. Steamship Co., Inc., T. R. Hancock, of S. Szcicovich & Co., Walter T. Smith of Daniel Ripley & Co., and A. H. Fonda representing the Steele Steamship line were in Atlantic City in January to attend the joint rate conference for the settling of the rate differentials between the North Atlantic, South Atlantic and Gulf ports. Other Galveston agents were represented by proxies from New Orleans.

\* \* \*

A shrimp cannery factory will be ready

for operation within a month at Port Bolivar, (on the mainland opposite Galveston) according to J. Hamilton Nil, one of the incorporators. The plant will use only the larger sized shrimp. After the canning of shrimp is well under way, the cannery may branch out to the canning of crab meat and vegetables. This section is particularly adapted to truck growing and a large cannery could be maintained if the farmers will co-operate.

\* \* \*

The American tanker HUGUENOT, 4282 net tons, entered Galveston Jan. 17 from Orange, Tex. for her annual inspection and cleared on Jan. 23 for San Pedro, Cal. She is the second vessel taken from layup within a month and put into the intercoastal oil trade by the Standard Oil Co.

\* \* \*

Last year 243,205,488 pounds of sugar valued at \$6,010,733 were imported through Galveston. The entire amount was imported by the Sugarland Industries and refined at their plant at Sugarland, Tex. This quantity establishes a new record for the importation of sugar and the month of May credited with 42,031,515 pounds was the record month of the year.

\* \* \*

Lykes Bros. Steamship Co., Inc., was appointed agent at Galveston in January for the vessels of the Societa Nazionale Di Navigazione of Italy by Uigui Deli Orto, Ltd., New Orleans, general agents for this line in the gulf. C. Nicolini & Co., were the former agents of the line. The CLIMERIS was the first to arrive under the new agency.

\* \* \*

The Standard Oil tanker, H. H. ROGERS and the Spanish steamer MAR Rojo had a slight collision while passing in the Houston ship channel in January.

\* \* \*

C. Nicolini & Co. have been appointed general agents for the Odero line for North and South America. They expect to maintain a schedule of two ships a month to Genoa and other Mediterranean ports with a great deal of attention devoted to imports as well as to exports. The IDA Z. O., MARINA O, and MADDALENA O will be the first vessels of this line to institute the new schedule.

\* \* \*

H. H. Cummings, storekeeper and fuel inspector for the shipping board at Galveston for the past two years has been transferred to Philadelphia and promoted to the position of chief storekeeper and fuel inspector for that district. J. F. Imboden has been transferred from New Orleans to succeed Mr. Cummings.

\* \* \*

During the time necessary in printing and disposing of the \$4,000,000 bond issue which was voted by Harris county, Tex., the navigation and canal commission is pushing the preliminary engineering work on the Houston ship channel. The dredge SAN JACINTO is cutting back the north bank of the turning basin to the building line. Railway extensions are being discussed with the several rail-

roads and preliminary drawings and estimates of the cost of several new wharves are being made. The J. F. Coleman Engineering Co., New Orleans, has been retained as consulting engineer.

\* \* \*

Collections for the port of Galveston for the first six months of the fiscal year ended Dec. 31, 1922 amounted to \$1,913,526.09, an increase of \$619,035.39 over the corresponding period in 1921.

\* \* \*

The erection of a large sugar refinery at Texas City will be started in the near future by the Texas Sugar Re-

finery Co. The building will be ready for operation in October of this year.

\* \* \*

Cotton receipts this year at the port of Galveston up to and including Jan. 29, amounted to 2,003,303 bales which corresponds to 1,764,363 bales to the same date in 1921. The total receipts for all American ports on that date were 4,490,362 bales so that the Galveston total closely approximates 50 per cent of the entire receipts. Of the Galveston total 1,661,403 bales have been exported and 341,900 constitute the stock on hand.

of the Seattle Construction & Drydock Co. The former intends to erect a government immigration station. The plans of the Admiral line include the construction of a \$3,000,000 ocean terminal consisting of three piers, each 1100 feet in length, warehouses and general offices.

\* \* \*

Inauguration of direct passenger and freight service to Porto Rico, Brazil and Argentina was the signal for demonstrations of approval at Seattle and other north Pacific ports, each of which sent a trade delegation on the PRESIDENT HAYES which sailed in late January. Heretofore, there has been no passenger service to the east coast of South America. Only within the last two years has freight service been offered. The line established by the shipping board has since then enjoyed a constantly growing business.

\* \* \*

One of the features of the phenomenal growth of water commerce between Pacific and Atlantic ports is the movement of doors and other finished lumber products. Recently a steamer carried a consignment of 14,500 finished doors shipped by a Tacoma factory to New York.

\* \* \*

Unusually high water in the Willamette and Columbia rivers during January resulted in some delay to shipping. This was particularly apparent at Portland where for several days no large ships could move through the drawbridges, pilots contending that because of the strong current navigation was too hazardous.

\* \* \*

Chinese corn is again being imported into Canada through Canadian ports. Early in the war there was a considerable movement of this cargo but only recently has there been renewed movement. Several thousand tons of this cereal arrived at Vancouver during January.

\* \* \*

The steamer BESSIE DOLLAR of the Dollar line bound for Yokohama, was taken in tow by the Admiral line steamer POMONA. It was reported that the BESSIE DOLLAR lost her rudder. She carried a cargo of lumber to the Far East. The accident happened about 1500 miles from Yokohama.

\* \* \*

of the Oriental commerce. It is estimated that 100,000 bales of this freight will be landed in Seattle for transhipment during the present season.

\* \* \*

During a recent visit to Seattle, T. V. O'Connor, commissioner of the ship-



WATERLOGGED BARKENTINE JAMES TUFT AFTER RESCUE

ping board, made a thorough survey of labor and stevedoring conditions. "The shipping board never again will permit its vessels to lie idle at docks during controversies between employers and longshoremen," declared Mr. O'Connor, who has been a prominent labor official.

\* \* \*

Port authorities of both Seattle and Portland are in active competition for the wool output of Washington, Montana, Idaho and Wyoming. Both ports are offering improved facilities to the growers of these states who are being urged to ship to Pacific coast terminals and thence by water to the world's markets.

\* \* \*

Vancouver, B. C., which has taken the season's lead in grain exports from the Pacific coast, will ship approximately 75,000 tons of wheat to the Orient before the close of the export year. This is in addition to a still larger quantity shipped to Europe.

\* \* \*

Both the port of Seattle and the Admiral-Oriental line are making offers to the government for the former site

Arriving at Victoria, B. C., from Yokohama on Jan. 28, in approximately 8 days, 19 hours and 30 minutes, the Admiral liner PRESIDENT GRANT established the fastest record ever made by an American steamer across the Pacific. The steaming time of the PRESIDENT GRANT is close to the transpacific record of 8 days, 18 hours and 31 minutes held by the Canadian Pacific liner EMPRESS OF RUSSIA since May 30, 1914. The PRESIDENT GRANT is commanded by Capt. M. M. Jensen who was suspended for one voyage several months ago because he exceeded the speed limit regulations of the shipping board. These rules have since been modified and on the last voyage the PRESIDENT GRANT was "opened up" for the purpose of seeing what speed she could develop. Thick weather at the end of the transpacific run undoubtedly robbed the American of establishing a new speed record. The PRESIDENT GRANT brought \$6,000,000 worth of silk in addition to much other cargo.

## Along the Atlantic Bays

**A**N ADDITION to Baltimore's overseas freight services is that of the North German Lloyd, which announces semimonthly sailings direct to Bremen from Baltimore—the steamer PORTA scheduled for April 4, the steamer EISENBACH for April 23 and the steamer HAMELIN for May 14. Subsequent sailings will be every 18 days.

The French ports of St. Nazaire and Dunkirk are now reached by direct sailings from Baltimore of vessels of the Texas Transport & Terminal Co., Wilbur F. Spice & Co., local agents.

Shipments of Pacific coast lumber into Baltimore are showing marked increase, an average of two or three million feet reaching the port every week. This year, it is predicted 1,000,000,000 feet of lumber will move via intercoastal steamers to Atlantic ports.

The North German Lloyd Steamship Co. has announced that it intends at some future date to inaugurate passenger service between Baltimore and German ports.

The Motor Transport Service Corp. is arranging for refrigerator ship service to the port of Baltimore from Los Angeles and San Francisco. The vessels used will range from 8800 to 9400 tons with diesel engines installed. Heavy shipments of grapes via this line are expected. The new company is incorporated for \$10,000,000.

Official figures on grain exports from Baltimore for 1922 are announced as 88,555,199 bushels, in comparison with 56,490,979 bushels in 1921. Corn shipments were far in the lead during 1922, the total for this grain being almost double that of any other.

Julean Arnold, commercial attache of the United States at Peking, China, will reach Baltimore during February on his tour of American cities. Special meetings of business men and college students are being arranged to hear him.

The shipping board has allocated the steamer TOLOSA, 8550 tons deadweight, to the Export Transportation Co., Baltimore, for operation on its Baltimore-Liverpool service.

A new vessel service from Baltimore to Miami, Fla., via Charleston, S. C., has been announced by the Baltimore & Carolina Steamship Co. Two ships are being reconditioned for this service. They are the MARY WEEMS and the ESTHER WEEMS.

At the annual dinner of the Traffic club of Baltimore on Feb. 5, W. M. Brittain, general manager of the Export and Import board of trade, addressed the club on "A Bold Innovation in Transportation," being an account of the recent visit of the Baltimore trade and shipping delegation to middle western freight centers. The visit of the Baltimore delegation to the middle west is already bearing fruit, a volume of in-

quiries and bookings having begun to reach the port from a number of the points visited.

The Porto Rico American Steamship Corp. has been chartered in Delaware with a capitalization of \$2,000,000 by officials of the Baltimore Steamship Co. of Baltimore. The new line will devote much of its attention to the carriage of coal and timber.

A preliminary meeting of the proposed North Atlantic Ports association was held in New York on Feb. 6, with delegates present from Boston, New York, Philadelphia, Baltimore, and Norfolk. W. M. Brittain and R. C. Herd represented the

Export and Import board of trade of Baltimore.

\* \* \*

The Baltimore Foreign Trade club held its first meeting of the present season on Feb. 8. William Werckenthien, export manager of the Island Petroleum Co., spoke on the functions of export commission houses and their value to a port such as Baltimore. Moving pictures of the harbor's terminal activities were shown.

\* \* \*

The Southern Pacific railroad has finally been authorized by the interstate commerce commission to enter the port of Baltimore with direct steamship service from Galveston and other gulf terminals. Numerous applications in the past from this company had been refused.

\* \* \*

It is understood that the Clyde Steamship Co. is having specifications prepared for two passenger and freight vessels.

## On Californian Shores

**A** NEW port on San Francisco bay is to be established at Wilson's Landing, by the business men of Palo Alto, at the southern end of the bay. Fifty years ago, Wilson's Landing was an important port, but it has fallen into disuse, with the laying of railroads down the peninsula. The channel is to be dredged and a wharf and warehouse built. The money has been raised and the survey is now being made.

\* \* \*

The entire ocean bottom off the west coast of America, from Point Descanso in Mexico to a point slightly north of San Francisco is to be surveyed by government scientists, co-operating with the navy department, and working on the torpedo boat destroyers HULL and CORRY. The objective is the thorough study of the cause and effect of earthquakes on the ocean floor along the west coast.

\* \* \*

The Compagnie Generale Transatlantique announces that it will place soon a new passenger and freight steamer of late design and recent construction, in its service between San Francisco and Havre, St. Nazaire and Colon. The new steamer has been named CUBA, and she is 495 feet long, 63 feet beam, and 38 feet deep, with accommodations, first class, for 280 persons. This is the first combination freight and passenger vessel to be placed in this service by this company.

\* \* \*

The Robert Dollar Steamship Co. has chartered a Japanese steamer to load lumber at British Columbia ports for New York at \$15.50 sometime during February.

\* \* \*

The Union Oil Co. has chartered the tanker IMLAY from the shipping board for 10 round voyages between San Francisco and San Pedro, Cal.

\* \* \*

J. J. Moore & Co. has fixed the MILAN MARU, 3409 tons, to load lumber at Humboldt and Puget sound for

Australia at \$14 for February loading.

\* \* \*

W. L. Comyn & Co. has chartered the bark HAVISIDE, 2132 tons, to load lumber at Puget sound and Ketchikan for Melbourne, under private terms.

\* \* \*

The state board of harbor commissioners of San Francisco is offering for sale the tug JAMES N. GILLETT, JR., at public sale to the highest bidder.

\* \* \*

Crowley & Mahony, San Francisco, have purchased the steamer COLUMBIA from W. R. Grace & Co., for \$75,000. COLUMBIA is of 968 tons, was built in 1912, and is being sent with cargo from New Orleans to San Francisco, where she will be delivered to her new owners and immediately put into the coastwise lumber trade.

\* \* \*

The Redstack Tugboat Co., San Francisco, has sent the tug TATOOSH, to Puget sound to join the fleet of the Lillicoe Barge & Tugboat Co. The SEA MONARCH, another of this company's tugs, has been operating in northern waters for some time, and another, the SEA LARK, is to be sent northward as soon as she returns from a trip to southern waters.

\* \* \*

The city of Oakland, Cal., took the first steps, in January toward construction of the new municipal pier, by starting the driving of the first 1000 piles. The new wharf is to be the first of three sister structures, all projecting at an angle into the estuary, eastward along the wall of the Municipal quay. Each one of these municipal wharves will be 575 feet 9 inches long on the western side and 532 feet on the eastern, and each will cost \$225,000. Each will be large enough to accommodate one 535-type vessel of the shipping board on each side. Plans for all three wharves have been completed but funds for only one have been voted. Wharfishes and sheds are comprehended in construction costs.